Author: Pennsylvania Dairymen's Association

Title: Report of annual meeting, v. 10

Place of Publication: Lancaster, Pa.

Copyright Date: 1935

Master Negative Storage Number: MNS# PSt SNPaAg024.10

Volume:

10

The Pennsylvania Dairymen's Association

Organized 1925

Succeeding the following organizations:

The Crawford County Dairy Association (1871)
The Pennsylvania Dairy Association (1874)
The Pennsylvania Dairy Union (1898)
The Pennsylvania Livestock Breeders' and Dairymen's Association (1916)

REPORT

of the

TENTH ANNUAL MEETING

January 24, 1935

Harrisburg, Pa.

WARREN F. WHITTIER, *President*
Douglasville, Pa.

C. R. GEARHART, *Secretary-Treasurer*
Dairy Building, State College, Pa.

INDEX

	PAGE
THE PRESIDENT'S ADDRESS—Warren F. Whittier	3
BANG'S DISEASE CONTROL IN PENNSYLVANIA—Dr. T. E. Munce	10
FEDERAL PLAN OF BANG'S DISEASE CONTROL—Dr. J. B. Reidy	12
A FEW FACTS ABOUT MASTITIS—Dr. B. Scott Fritz	13
ECONOMIC CONDITIONS IN PENNSYLVANIA AGRICULTURE WITH SPECIAL REFERENCE TO THE DAIRY INDUSTRY—Dr. F. P. Weaver	15
BETTER PASTURES PAY BETTER—D. R. Dodd	28
PROJECTS OF THE AGRICULTURE ADJUSTMENT ADMINISTRATION—Louis McL. Merryman	39
ANNUAL BUSINESS MEETING	44
RESOLUTIONS	45
ANNUAL BANQUET	48
MERIT AWARDS	49
MILK SHOW SPECIAL AWARDS	50
HERD HONOR ROLL	51
MEMBERSHIP	73

ADVERTISERS

	PAGE
American Jersey Cattle Club	Inside cover
Ayrshire Breeders' Association	4
Lonicera Guernseys	9
Pennsylvania Guernsey Breeders' Association	11
The Creamery Package Manufacturing Company	14
American Seal-Kap Corporation	17
American Cyanamid Company	21
Dairymen's League Co-operative Association	27
Eastern States Farmers' Exchange	33
Rivermead Farm	37
Amco Feed Service	45
The Mathieson Alkali Works	49
Standard Cap and Seal Corporation	Inside back cover
Pennsylvania Federation of Holstein Friesian Clubs	Back cover

President's Address

WARREN F. WHITTIER

Lonicera Farms, Douglassville, Pa.

LADIES AND GENTLEMEN: In welcoming you to the tenth annual meeting of our Association, it would seem proper that we should give serious consideration to the events of the past twelve months, to current conditions, and to some anticipation of what the new year upon which we are entering may bring forth.

Obviously, the most important event was the appointment and the work of the Milk Control Board, under the Milk Control Act, passed by the special session of the legislature in 1933. Much was hoped for through the regulation of the dairy industry, and much has been accomplished by the Milk Control Board. In viewing the results to this date, we must bear in mind two important facts. First, the immensity of the task of setting up the proper machinery with which to carry out the requirements of the Milk Control Act. Second, the pronounced diversity of market conditions, and production conditions, that exist in a state as large as Pennsylvania. Hence, we must view the efforts of the Control Board with real charity in our hearts. Some of our members have been helped materially; others have derived no visible benefit. But we must remember that it is utterly beyond the power of any three men to adjust all existing conditions in a business so complex as the dairy industry of Pennsylvania; and this is especially true when we consider the short period of time at their disposal thus far.

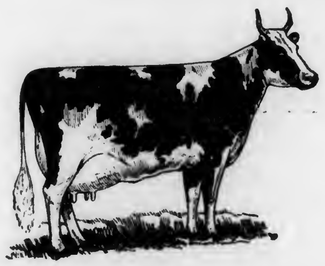
The immediate advantages of the Milk Control Act have appeared in the maintenance of prices to producers throughout the greater part of the State, and the protection of producers from the practices of dishonest and financially irresponsible distributors. Serious disadvantages have come through apparent inability of enforcement of the orders, and through an abuse of that part of the Act which permits exemption from bondnig of distributors; and also by the formation of "rump" co-operatives by some dealers in order to evade proper restrictions.

However much the fixing of prices may have seemed to benefit us individually, or in marketing groups, the danger of setting up a price scale which appeals to most of us as more in line with our costs of production must not be over-looked, and can not be emphasized too strongly. I refer to the stimulation of production through more "satisfactory" prices. Within two months after the Control Board issued its first price orders the cow dealers of the State began to feel increased business. The year 1934 has greatly exceeded all previous years in the history of the State in importations of dairy cows. This is a direct result of the increase in prices for milk, and is a splendid demonstration of what occurs when prices are fixed artificially, and are not based upon the time-tested economic law of supply and de-

mand. During the pasture months the usual increase of milk over winter production is approximately fifteen percent. In the past grass season, dealers widely scattered over the State reported increases of from twenty-five to as high as fifty percent above winter receipts. This could be directly attributed to more cows being milked generally because of higher prices.

It should be apparent to all thoughtful dairymen that under the present reduced purchasing power of consumers only a certain portion of the milk produced can be sold in fluid form. To increase the total volume of milk produced in the State, as has occurred in 1934, simply means that a larger percentage must be sold in Class 3, with a consequent lowering of the weighted price received by the producer for his total out-put. Because it has seemed difficult for a considerable number of our dairymen to understand just what has taken place in our milk markets during the past several months, I should like to introduce here a mathematical demonstration of how the increase in production affects the net price to the producer.

Let us suppose that you are selling your milk to a dealer who is receiving a total of 100,000 lbs. a day from his patrons. Let us also suppose that this dealer is selling 60,000 lbs. a day as fluid milk, Grade B; 15,000 lbs. in fluid cream and ice cream, and the balance, 25,000 lbs. goes into butter. For simplification we will consider that



THE AYRSHIRE IS THE COW FOR YOUR FARM

She makes the most 4% milk at least feed cost—has correct type with an udder that wears. Ayrshires are hardy and rugged and make the best use of pasture grasses.

Write for literature or help in locating foundation stock to—

The Ayrshire Breeders' Association

Department P

Brandon, Vermont

the milk is all 3.5%, and we will omit sanitation and transportation differentials. You are delivering 500 lbs. per day to this dealer. Using actual prices as established by the Control Board for August, 1934, your returns per day would be as follows:

Eample I.

Class 1	60% of 500 lbs.	=	300 lbs.	@ $ 2.24	= $6.72
Class 2 & 2B	15% of 500 lbs.	=	75 lbs.	@ $ 1.45	= $1.0875
Class 3	25% of 500 lbs.	=	125 lbs.	@ $.9583	= $1.1978
				Total	= $9.0053
				or $1.801 per 100 lbs.	

Now let us assume that you and the other patrons of this dealer have felt that by increasing your herds you can improve your financial condition, and have done so, with the result that your dealer is now receiving 130,000 lbs. per day, instead of 100,000 lbs. But bear in mind that he is still able to sell only 60,000 lbs. in Class 1, 15,000 lbs. in Class 2 and 2B, and the balance must go into butter, which balance now becomes 55,000 lbs. instead of the 25,000 lbs. in the above example. This changes the percentage of your milk that is used in the three classes as follows:

100,000 bis. milk		130,000 lbs. milk	
Class 1	60%	Class 1	46,15%
Class 2 & 2B	15%	Class 2 & 2B	11.54%
Class 3	25%	Class 3	42.31%

If you have increased your production in line with your fellow patrons, you are now delivering thirty percent more milk than previously, or a total of 650 lbs. per day. Thus, your receipts for 650 lbs. milk would be as follows:

Example II.

Class 1	46.15% of 650 lbs.	=	299.98 lbs.	@ $ 2.24	= $ 6.7195
Class 2 & 2B	11.54% of 650 lbs.	=	75.01 lbs.	@ $ 1.45	= $ 1.0876
Class 3	42.31% of 650 lbs.	=	275.01 lbs.	@ $.9583	= $ 2.6353
				Total	= $10.4424
				or $1.6065 per 100 lbs.	

Now, if by chance, you have not increased your own production, but have held it at 500 lbs. per day, but your fellow patrons have increased their output so that your dealer receives 130,000 lbs. per day, instead of 100,000 lbs. your returns for your 500 lbs. will be as follows:

Example III.

Class 1	45.15% of 500 lbs.	=	230.75 lbs.	@ $ 2.24	= $5.1688
Class 2 & 2B	11.54% of 500 lbs.	=	57.70 lbs.	@ $ 1.45	= $0.8366
Class 3	42.31% of 500 lbs.	=	211.55 lbs.	@ $.9583	= $2.0233
				Total	= $8.0287
				or $1.6057 per 100 lbs.	

In this latter case you have received the same price per 100 lbs. as you would have received, had you increased your production by thirty percent, but your total receipts are $2.41 less. Comparing your returns for 500 lbs. milk per day when your dealer received 100,000 lbs. per day, as against 130,000 lbs. per day, you have received $0.9766 more on the 100,000 lb. basis, and your return per 100 lbs. has been $1.801, as against $1.606. It should also be noted when you have increased your out-put by thirty percent, you perhaps expect to receive thirty percent of $9.0053 (Example I) or $2.70 more for your milk, whereas you actually get only $1.4371 more for it, and your return per 100 lbs. is actually 20% less. Compare Examples 2 and 3 with Example 1, and think it over. Particularly remember that where you are selling on the utilization classification through a dealer whose outlet for fluid milk is more or less fixed, the more milk you make, the less price per 100 lbs. you will get. I have dwelt on this in detail because I have had countless queries from dairymen during the past months as to why they have been paid for less milk in Class 1, and for more in Class 3.

Other developments during the past year have been the attempt of the A.A.A. to introduce a processing tax on dairy products, and the initiation of disease eradication, as an effort toward temporary production control. As you all recall, the processing tax campaign was opened with a regional meeting held in Philadelphia last April. It may be regarded as a tribute to the good sound common sense of the dairymen in the region included at that hearing, that they turned down the processing tax theory most determinedly, thereby establishing a precedent for the other regions of the country to follow.

Money for the tuberculosis and Bang disease eradication became available in the middle of the summer of 1934, and a liberal allotment for Bang disease indemnity in Pennsylvania was made. Much interest in this program has been evinced by the dairymen throughout the State, and it is to be hoped that as many as possible will avail themselves of the opportunity to free their herds of Bang disease, which takes a vastly greater toll from the pocket-books of our dairymen than tuberculosis ever did. Unfortunately, funds for the adequate increase of laboratory and office facilities have not been provided, and it has been impossible as yet for the Bureau of Animal Industry to accept and test all the herds represented by the applications which have been received. This condition will require patience on the part of all, until it can be rectified.

While it is beyond question greatly to the advantage of every dairyman to eliminate Bang disease from his herd, and to do so while general national conditions are favorable to a relatively high salvage price, a note of warning should be sounded to those dairymen who are depending upon the sale of a more or less fixed volume of milk. If you have reason to feel that a fairly high percentage of your herd is infected with Bang disease, and if you do not have any funds available that you can add to what you realize from indemnity and salvage, in order to replace with clean cattle so that you may produce the volume of milk upon which you are depending, it will pay you to study the matter very carefully before signing up on the Bang disease program.

Last fall what is known as the Northeast Dairy Conference was organized. This is comprised of a group of delegates from the larger co-operatives, the dairymen's Associations and the Agricultural Extension services of the twelve north Atlantic states. This Conference was set up with the objective of securing an exchange of ideas among the active dairy leaders of the territory included, looking toward some fundamental basis toward which to work in the interests of the producers, in recognition that the problems in the various states represented are of a similar nature. Your Association has been represented at the meetings of this Conference, and it is hoped that a year from now much information of material benefit may be presented to you.

Somewhat before the calling of the Northeast Dairy Conference, the officers of our State Grange invited approximately thirty producer groups in the State to send delegates to a conference in Harrisburg, with the objective of determining what form of milk legislation would be most advantageous to our dairymen. Several meetings were held, and emergency milk legislation was discussed from many angles. It was finally decided that the present Milk Control Law should, in general, be re-enacted, with amendments providing for the bonding of all distributors, for the continuance of the Act for another two years, giving to the Governor, however, the right to terminate the law at a prior date, if conditions indicated that the emergency was over, and providing for an increased appropriation.

The entire problem of milk legislation, from the producer viewpoint, is very complicated, owing to the variety of territorial interests that exist. A survey by our officers, drawing upon many sources of information, would indicate that, taking the State at large, about half o fthe dairymen strongly favor the continuance of the milk control act, and the other half are indifferent. How to satisfy as many as possible is a big question.

This report has, for unavoidable reasons, been written piece-meal. Since the above was set down a definite change of attitude can be observed among the dairy leaders of the State. The decision of the United States Supreme Court in the Seelig case in New York, which denies the right to any Control Board to fix prices to be paid for milk purchased outside of the State, has raised a serious question as to the power of any Control Board to control prices henceforth. As price-fixing and price enforcement are the major function of a Control Board, and as this power is now dubious, the sentiment is crystallizing in certain quarters that perhaps we shall be better off without a control board, providing that bonding, licensing, and arbitration are preserved, and placed in the Department of Agriculture. In some minds this thought is supported by the fact that price fixing can be

only temporary, that we must eventually return to bargaining and the law of supply and demand, and that the sooner this is accomplished the better off the dairy industry will be.

Also, one hears epressed more frequently the thought that the Vermont Milk Control law, with some modification, might prove satisfactory in Pennsylvania. In brief, the Vermont law assigns three State employees to act as a control board, and states that whenever a certain percent of producers and distributors serving a given market area shall request the fixing of prices to producer and to consumer, the control board shall investigate the conditions and fix such prices as it deems fair to all concerned. In those markets which do not request assistance the control board does not function at all.

In presenting the above I have simply tried to set forth the outstanding current thought on the solution of the problem. Our members can be of great assistance to our officers if they will tabe the trouble to express their own views in writing.

It is a great pleasure to report that our paid up membership for the year 1934 is the largest in the history of our Association. This is primarily due to the tireless efforts of our Secretary and to the splendid co-operation and support given us by the Dairy Herd Improvement Association testers. To these gentlemen I wish to express my heartiest thanks, and the sincere appreciation of all our officers.

In order that we may go forward during 1935, and improve upon our record of recent years, let each one of us secure a neighbor as a new member; let us pay our dues promptly; let us strive for an even more representative membership than ever before so that we may maintain the recognition that enables us to be of real service to the dairy industry of the State; and above all, let every member who desires to express his thoughts on the dairy situation write them to the officers, so that each one may feel that he is sharing in the responsibility of formulatnig our policies, and is assisting in the service that we can render.

120 HEAD 120

Negative to Blood Test

Accredited Free from Tuberculosis

LONICERA GUERNSEYS

Home of State Champion Cow
in Class AHI and BHI
Young Bulls and Females on Offer from Dams
with Creditable Herd Improvement Records

WARREN F. WHITTIER HAROLD M. LEINBACH

Douglassville, Pennsylvania

Bang's Disease Control in Pennsylvania

T. E. MUNCE, *Director*, Pennsylvania Bureau of Animal Industry

Mr. Chairman and members of the Pennsylvania Dairymen's Association:

I am to discuss Bang's disease control from the state's standpoint. Because of the fact that the Federal Government a few months ago started to cooperate with the states in controlling Bang's disease and the further fact that Pennsylvania has had a plan since 1920 for controlling this disease and with which our dairymen should now be familiar, I am going to make my remarks brief and thus give Dr. J. B. Reidy more time to explain in reference to the program of the Federal Government.

Owners who do not choose to take advantage of Federal Indemnity may have blood tests made under the Pennsylvania Plan. In other words it is not compulsory for an owner to sign up his herd under the Federal Plan unless he wishes to be paid Federal Indemnity for cattle which react to the blood test. The state does not pay indemnity for Bang's disease and as far as we know it is not the intention to do so in the near future.

In case an owner wants to receive Federal Indemnity he must sign both the State and Federal Plans. Dr. Reidy as I have stated will explain the Federal Plan and the payment of Federal Indemnity.

It was decided some time ago to discontinue examining blood at the State Laboratory except in connection with herds which are signed up under the State Plan or cattle for export to other states or cattle for addition to herds signed up and operating under the State Plan.

So that you will thus see there is no change in the blood testing policy in so far as the state is concerned. The only new feature therefore in the Bang's disease control work in Pennsylvania is that the Federal Government has entered this field of disease control work including the payment of indemnity for cattle that react to the blood test and which as I have stated will be explained by Dr. Reidy.

We have a limited supply of the Plans here for distribution to those who may want them to take along home and read and in case the supply will not reach and you will give us your name and address, they will be mailed.

I want to express our gratitude to the members of this Association for their fine cooperation and helpful attitude toward the Bureau not only in relation to our Bang's disease control work but in all other phases of our activities as well. Without your help and constructive suggestions the Bureau could not successfully function.

Unless there are questions you would like to ask in reference to the Bang's disease control work as carried on by the state I shall with your permission, Mr. Chairman, yield the floor to Dr. Reidy, who in addition to discussing the Federal Program for controlling Bang's disease will also tell you in regard to their program to eliminate and pay indemnity for cows affected with mastitis or garget.

Golden GUERNSEYS

Producers of America's Table Milk

The product of this quality breed each year at the Pennsylvania Farm Products Show wins the majority of prizes offered. In 1934 seven of the nine gold medals, and 61% of all awards were won by Guernsey Milk.

Invest *now* in a foundation of Pure Breed Guernsey and prepare for the profitable markets being developed for their off-spring and their product.

PENNSYLVANIA GUERNSEY BREEDERS ASSOCIATION

Harrisburg, Pennsylvania

Federal Plan of Bang's Disease Control

DR. J. B. REIDY, *Inspector-in-Charge*
Harrisburg, Pa.

The Federal Government through the Agricultural Adjustment Administration recently allocated one million dollars to Pennsylvania to be used to partially compensate owners of Bang's disease infected animals, provided such animals are slaughtered under official supervision within 30 days after appraisal.

Cattle owners are required to sign both Federal and Pennsylvania plans before the test is started.

Those owners desiring to employ their own veterinarian at their expense send in their applications to either the State or Federal Bureau offices with a notation on same that they will pay the veterinarian employed.

When a group of farmers in a given locality wish the Government to furnish a veterinarian free of charge to conduct this test all applications are forwarded to this office at one time and assignment of work is made so that service is given to the early applications first.

Either Federal or local veterinarians are employed to do this work. Disposal of reactors found are along the same plan as in tuberculosis eradication.

Maximum indemnity of $20.00 on a grade and $50.00 on a purebred animal is paid providing the total of monies received from the butcher as salvage plus the Federal indemnity does not exceed the appraised value.

About $300,000 of our present appropriation is already contracted for.

MASTITIS IN CATTLE

Mastitis is a serious ailment in dairy cattle, especially the heavy milkers.

Acute cases often occur after freshening, and may clear up under proper treatment in a short time. However, when the functioning cells of the mammary gland become destroyed due to continuous infection remaining in that part, the capacity of producing milk in that quarter is greatly lessened and finally dries up or degenerates in abscess formation.

The infection which is caused by a streptococcus germ is carried on the milker's hands from one cow to another so any cow affected with this disease should be milked last and the milker's hands disinfected after such milking.

The Agricultural Adjustment Administration recently allocated $40,000 as indemnity to owners of cattle affected with this trouble and already about 1,000 herd owners have signed up for this test.

Only physical cases are condemned and the same amounts are allowed under the same conditions as Bang's disease; namely, a maximum of $20.00 on a grade and $50.00 on a purebred, provided that what the owner receives from all sources does not exceed the appraised value.

A Few Facts About Mastitis

DR. B. SCOTT FRITZ
Bureau of Animal Industry, Harrisburg, Pa.

Mastitis or "garget" (a more common term) is an inflammation of the udder and may be observed in many varying forms. The average dairyman is not apt to recognize the disease in its mild form, which is of great economic importance.

Time will not permit me to present other than a few brief remarks regarding mastitis. Several points that are frequently omitted in a discussion of this disease should be stressed as important to most dairymen. Mastitis is caused by germs which grow in udders after the udder's normal resistance is reduced by other causes. Among those things that could be pointed out as primarily responsible for reducing the udder's resistance are: A desire on the part of the feeder to bring the recently fresh cow too rapidly into production. Excessive feeding of the milking cow in lactation when there is a natural tendency for a reduction in secretions and the feeder hopes to maintain production at a high level. In this stage of lactation the ration is narrowed in relation to the milk produced with the result of an over stimulation of the glandular structure of the udder and frequent evidence of mastitis. Other responsible factors are rough milking, indifferent milking, incomplete milking, milking at irregular times, and sudden chilling of the udder. Those of you who are milking cows regularly should review with yourselves each case of mastitis in your herd as being something in which you may have been responsible. Be judicious in your practices of care and management and comply with the accepted feeding standards. If you are not familiar with good dairy practices contact men who can familiarize you with them.

The success in the treatment of the disease by a veterinarian depends upon its early detection. For this reason you should make use of a strip cup regularly as a routine practice before each milking to detect the first evidence of flaky milk. Flaky milk from one or more quarters of the udder is the first indication of mastitis and curative treatment should begin by the immediate reduction of the grain ration

to a minimum and frequent milking. Many mild cases may be corrected by this simple procedure, which would develop into serious trouble if left go unnoticed.

When flaky milk is observed the infection or factor responsible is confined to the teat canal and cystern. If the disease becomes extensive and later involves the glandular structure of the udder, repair of the organ occurs only through infiltration of the diseased portion of the gland by fibrous tissue. Treatment of mastitis where infection involves the glandular structure is difficult and most frequently results in the loss of that quarter. The disease in this form usually results in a chronic condition and cows so affected may act as carriers of the infection to other animals in the herd. They should be eliminated or at least isolated and if milked in the herd, treated with the utmost care and cleanliness by the milker.

To summarize briefly my remarks, permit me to caution you for the need of good care and management to keep your herd free from this disease and use means to detect the cow affected before it is too late. Good dairy practices are the essential factor in the control, the elimination, and essentially the prevention of this disease.

DAIRY SUPPLIES

The Creamery Package Mfg. Company
2412 Walnut Street
Philadelphia, Pa.

Economic Conditions in Pennsylvania Agriculture with Special Reference To the Dairy Industry

F. P. Weaver

THE CONDITIONS in agriculture are so closely tied up with the administration activities designed to restore the farming industry to its prewar status in regard to ability to pay debts and taxes and to obtain its fair share in the total national income, that the subject may be treated fairly adequately by surveying the problems with which agriculture is confronted and appraising the accomplishments to date toward the solution of those problems.

1. The Debt Situation

In 1913 the farm mortgage debt in the United States was about 3⅓ billions of dollars, by 1921 it was almost 8 billions, in 1929 about 9½ billions and in 1933, 8½ billions or 256 per cent of the 1913 figure. Total long term debts of all classes of people were about 38 billions in 1913, 126 billions in 1929 and 134 billions in 1933. The national wealth rose from 192 billions in 1913 to 385 billions in 1929, and then declined to 300 billions in 1933, so that while in 1913 the debt was 20 per cent of the national wealth, in 1929 it was 33 per cent and in 1933, 45 per cent. In other words, one-half of all wealth was really owned by others than those who held title to it.

What is the significance of this debt situation in connection with an agricultural program? In the first place let us remember that this debt has neither created nor destroyed any wealth. The country has all the farms, mines, factories, railroads, churches, schools, hospitals and art museums that it had before three-fourths of the debt was created and would have no more if all the debt were wiped out. Indebtedness is simply a device to get property into the ownership of those who wish to use it more quickly than could be possible if the user first had to save enough to buy for cash. A nation that believes in ownership of homes and farms by those who use them will have a large amount of long term indebtedness. When Denmark reduced its farm tenancy from 90 per cent to 20 per cent, the farm mortgage indebtedness increased enormously. The farmers paid interest but no rent.

The debt becomes serious only when it represents an undue proportion of the property on which it is based, and different from the proportion which it represented when incurred. When long term debts increased 8 billion dollars while wealth decreased 85 billion dollars, ownership of property was transferred without any payment being made for it. When the national income declined from 85 billions in 1929 to 40 billions in 1932-33 and the cost of debt service increased

from 7,642 millions to 7,910 millions, the creditors' share in the national income rose from 9 per cent to almost 20 per cent, but the creditors had paid only 3½ per cent more in order to obtain over twice as large a share in the national income.

Applying similar figures to agriculture, in 1929 the long term farm creditors in the United States had 9½ billions invested in farm mortgages and were receiving in interest 5 per cent of the gross income from farm production. By 1933 the creditors had one billion less invested in farm mortgages but received 8 per cent of the gross farm income in interest charges. In other words, a 10 per cent smaller investment entitled the creditors to a 60 per cent larger share in the farm income, and increased their share in the value of farm real estate from 20 to 25 per cent.

This is the serious problem in farm indebtedness which must be met in any sound agricultural program. It can be met in a practical way only if higher prices obtain so that the same amount of money payment on debts which represented 20 per cent of the national income in 1932-33 will represent only about 9 or 10 per cent of the total buying power or total command over goods and services.

To restore the 1929 balance in equity in the property and in relative income it is necessary for gross farm income to increase 3½ billions of dollars or about 50 per cent above the 1933 level, and for farm real estate values to go up 12 billion dollars or a little over one-third above the 1933 figure. A scaling down of debts that are in excess of full value of the property can not meet this situation for there is relatively just as much injustice in the case of the farmer whose debts are 50 or 80 per cent of value as in the case where they are 125 per cent.

To restore equity without raising prices would require that all debts be scaled down to about two-thirds of their 1933 figures. If prices can be raised so as to add 3½ billions of dollars to the farmers' incomes, it will enable them to pay their debts with approximately the same amount of products as they had a right to anticipate when most of these debts were incurred.

Accomplishments of the Farm Credit Administration

Realizing that a great deal of injustice was sure to occur before prices of farm products could be raised sufficiently to restore their former paying power, the Farm Credit Administration has aimed to extend some relief at the other end by a five year moratorium on amortization payments on principal and by reducing the interest rates for the five year period to 4½ per cent.

The Production Credit Corporation, as the name implies, furnishes short term credit to farmers to be used to finance the expenses of the year's operation. The object in setting it up was to provide a dependable source of credit to farmers at a time when it was practically impossible for the local banks to provide this credit. Its permanent function, however, is to provide credit that is not based on depositors' money which may be called for payment before a farmer

SEAL-KAPS

Protect Your Reputation

Your milk is clean—pure—sanitary when you bottle it.

But after it is bottled—What?

Is it safe from accidental contamination—for which you may be blamed?

It is if you use SEAL-KAPS.

FOR SEAL-KAPS—the convenient bottle caps—are sanitary. They protect the pouring lip against outside contamination. They reseal tightly when replaced. They protect your milk till the last drop is used.

AMERICAN SEAL-KAP CORPORATION

1105-44th Drive
Long Island City, N. Y.

can grow a crop to market stage or mature a calf into a producing cow.

This corporation functions through local production credit associations which are really local cooperative banks which lend to their members and rediscount their paper with the Intermediate Credit Bank.

The Baltimore corporation which serves this district, made loans in the last year of over $4,650,000. $1,256,000 of these were in Pennsylvania, while prior to the setting up of the production credit associations the Intermediate Credit Bank did practically no business in Pennsylvania. This last year 2,226 Pennsylvania farmers obtained their short term credit from this source.

In the 21 months of operation (March 27, 1933 to December 31, 1934) of the Farm Credit Administration loans were extended to farmers amounting to $2,567,000,000. This has not had the effect of increasing total farm debts but 90 per cent was used to pay off existing indebtedness and most of the balance served to finance the 1934 production operations and has been paid back again.

According to the calculations of the Farm Credit Administration, the annual savings in interest due to reduced principal on many loans and to the lower rate of interest amounts to 31 millions of dollars annually. The lending by the Land Bank in the Baltimore District during the last 12 months has amounted to over $34,000,000 and represented almost 16,000 separate loans.

In addition to savings in interest through a lower rate on present borrowings as well as on mortgages held by the land banks, there was a saving to farmers through voluntary reduction of the principal by the former creditors in the case of 16 per cent of the borrowers. The average reduction was 26 per cent of the principal and for the 18 months period amounted to $65,000,000 for the United States as a whole. While this is a 26 per cent reduction for ths group of borrowers, it has reduced the total indebtedness of all the land bank borrowers of the past 18 months by about 4 per cent.

Inasmuch as this procedure has made possible a wiping out of excessive debt in individual cases without bankruptcy which would have deprived farmers of their farms and put them into the hands of people who are not in a position to use them advantageously, it is hoped that this type of voluntary adjustment will continue.

A summary of what the Farm Credit Administration has done to improve economic conditions in agriculture would not be complete without referring to the organization and work of the Production Credit Corporation and of the Banks for Cooperatives. Through the latter an adequate and sympathetic source of credit for farmers' cooperative organizations has been set up. The volume of business in the Baltimore District alone to the end of December 1934 amounted to commitments of $3,789,000 and actual advances of $3,252,000. This bank does not foster the cooperative movement by extending credit to every group of promoters which comes for a loan, but it does aim to

assist legitimate and sound cooperative enterprise by making credit available to cooperatives engaged in a legitimate business and whose set-up is on a sound business basis. No cooperative effort that is sound needs to be hampered for lack of credit. The interest rate at present is 4½ per cent on loans to aid in purchasing equipment and 3 per cent on loans for effective merchandising.

2. The Farmers' Share in the National Income

In 1910 the farm income was 17.7 per cent of the income for all industries and in 1920, 16.1 per cent. By 1928 it had dropped to about 9.6 per cent and by 1930 to 7.6 per cent. The total value of all farm property in 1930 was 17.4 per cent of the national wealth. Inasmuch as ownership of farm property is considered less hazardous than many other forms of wealth, it is quite likely that farm property should and will yield a lower rate of return than other property. It is also likely that more and more activities such as baking, slaughtering, making of clothes, etc., have been transferred from the farm to city factories since 1910 and that therefore a somewhat smaller percentage of total income should go to farmers in the future than in 1910. On the basis of a national income of 48 billions in 1934, 17.7 per cent to agriculture would mean 8½ billion dollars.

According to Standard Statistics, the 1934 farm income will amount to $8,019,000,000, of which one billion is from benefit payments. The income from sales is about 14.6 per cent of the national income while in 1933 it was less than 14 per cent.

A program that aims to give farmers approximately the same share in the national income as in prewar days must raise by about one-half billion what he receives out of the present total and increase sales by one billion to offset benefit payments, and increase by a billion dollars each time that the national income increases six billions.

This figure from Standard Statistics is about one billion dollars higher than the estimate put out by the Department of Agriculture. This is no doubt due to the fact that the Department includes only income from sales of farm products and the value of products consumed by the farmers' families. Secretary Wallace credits agriculture with being entitled to 13 per cent of the national income when figured this way and states that agriculture receiived 8 per cent in 1932, 9½ per cent now, and should get 13 per cent or slightly over one-third more than now. If the total national income increases, the income to agriculture from production should increase one billion for about every eight billion in national income.

Measures for Raising Farm Income

Much has been said in certain quarters about the justification of taxing the consumer through processing taxes for the purpose of raising the farmers' incomes. Restricting production of farm products for the purpose of raising prices has been similarly denounced. I want to make clear that so far as I am concerned I am not worrying about these one-sided moralists but am concerned chiefly as to whether

these measures are sound from an economic basis and whether they will in the long run accomplish their purpose.

The processing tax should cause little ethical concern in a nation that for a century has believed in and practiced taxation of consumers through the tariff for the protection of certain interests. In the case of olive oil, for example, we are taxing American consumers over five millions of dollars a year in order to protect an industry that produces less than 2 per cent of domestic consumption. The processing tax is mild in its effects on consumers when compared with articles under tariff protection and is just as equitable. So far as reduced production is concerned, farming has a very fine record when compared with industry. In 1933 farm production was 7 per cent below that of 1929 and in 1934, it was 15 per cent below, with the combined effect of production control and the drought. In the industrial field, production in 1932 was 59 per cent below 1929 and in 1934 it was 42 per cent below. Prices of industrial products during the past years averaged 84 per cent and prices of farm products 60 per cent of prewar. It would require a processing tax of 40 per cent to offset this difference.

The question is not one of justification but of getting results. It is not likely that increased prices through curtailed production can go any farther in increasing the income of farmers. I pointed out the limit in this respect in a paper given in Philadelphia a year ago. The elasticity of consumption of many farm products is such that when you raise prices by reducing production, consumers will take less at the higher price, so that the result of volume times price gives the same total income as before. Different products vary in the degree to which this is true. Farmers then receive the same amount of money for less product, but their ability to pay taxes and debts is increased only by the trifle which they may save in production costs. This is usually small when reduction results in idle land and idle workers in the farmer's family. Secretary Wallace in some public utterances recently has said that reduction of production has gone as far as is practical and that in the future control should consist largely of preventing the reestablishment of huge surpluses rather than the creation of further shortages.

Inflation as a tool to accomplish a higher share in total incomes and greater purchasing power for farmers has also been somewhat disappointing. Statistical analysis of prices here and in other countries shows that the attempted inflation has raised the price of raw materials fully as much as the price of gold was raised, but theoretically it should have raised the general price level that much and prices of raw materials about twice as much as the prices of finished goods. In this way farmers as producers of raw materials would benefit.

The steps taken toward inflation will no doubt become more effective during the period when recovery will be definitely under way. In fact the experience thus far, instead of completely discrediting inflation measures to cure the ill effects of deflation, simply shows how

THE clover catch is poor . . . Old sods were injured by drouth . . . There is no carry-over of hay. You will be short of feed again next winter, unless you do something drastic about it.

The HAY CROP offers the BEST OPPORTUNITY to PRODUCE MORE FEED to meet this emergency

FERTILIZE your best sods WITH

'AERO' CYANAMID

And grow ***an extra ton of hay*** to the acre ***at a cost of $5.*** There is no other way to get extra feed at so little cost.

Cyanamid-fertilized early-cut timothy hay is good dairy-cow hay.

and Don't Forget— AERO Cyanamid on good pastures produces twice as much grazing—beginning 2 weeks earlier.

Write for Leaflet X-320, 'Aero' Cyanamid for Pastures, and X-321, 'Aero' Cyanamid for Hay.

AMERICAN CYANAMID COMPANY

Manufacturers of 'Aero' Cyanamid and 'Ammo-Phos'

30 ROCKEFELLER PLAZA NEW YORK, N. Y.

The Nitrogen Fertilizer that Sweetens the Soil

difficult it is to produce an inflationary effect at a time when there is little incentive to borrow funds for business purposes. This is not difficult to understand in light of the fact that 90 per cent of the purchasing power ordinarily employed in business transactions is in the form of bank credit against which checks are written. It is the change in the ratio of paper money and bank credit to gold from good times to bad that makes it difficult to correct for the decline in total purchasing power that occurs over short periods by reducing the weight of the gold in the dollar. Whereas in 1920 there was about 14 times as much money and credit as gold, in 1921 there was less than 9 times as much. Similarly in 1929 paper money and credit were again over 14 times the gold stock, but by 1933 probably between 11 and 12 times. When the weight of pure gold in the dollar was reduced from 23.22 grains to about 13.7 grains, the number of dollars represented in the gold stock rose automatically by about 60 per cent. This would reduce the ratio of money and credit to gold to between 7 and 8, and there has been no corresponding increase in bank deposits up to the present.

My own conviction is that reserves are ample now for quite a degree of inflation through expansion of bank credit simultaneous with business recovery. It is during that period that I believe the level of all prices will rise enough for the farmers' share in the national income to go back to the prewar ratio through a greater rise in raw material prices than in those of finished goods. According to Secretary Wallace this would mean that farm prices would have to rise faster than other prices to a degree that while the national income rose from 50 to 70 billions the farmers would get 25 per cent of the increase. It is also during the recovery period that the real test will come as to whether or not inflation can be controlled during a period of extensive borrowing from banks and when bond issues are being floated on a huge scale.

3. Foreign Trade in Relation to Agriculture

The total exports of the United States have declined 68 per cent in value from 1929 to 1933 and total imports declined 67 per cent in the same time. Wheat and flour declined 78 per cent in volume and 90 per cent in value; agricultural machinery 91 per cent, raw cotton 48 per cent and cotton manufactures 71 per cent, lard 68 per cent and tobacco 43 per cent. As the United States normally exports 13 per cent of its total farm production, more than half of its cotton, a third of its tobacco and a fifth of its wheat, permanence of this decline will mean the loss of a market for the product of from 40 to 100 million acres of land. The money value of agricultural exports for 1933-34 increased 35 per cent over the previous year but in terms of a depreciated dollar so that the volume was 2 per cent less, and 15 per cent less than in 1931-32. This decline in the face of efforts to restore trade should not surprise us when we consider that a lowering of the dollar to 59 per cent of its former gold value had the effect of imposing an additional tariff of 69 per cent on all imported goods. The administration has therefore rather unwittingly enlarged upon the worst international commercial policy of its predecessor, but with a different weapon.

That the devaluation of the dollar has been helpful to farmers in connection with their debt and tax paying ability is no doubt true, but in the field of foreign trade it has had a very damaging effect. The impact on foreign trade was to try to force a larger share of exports and at the same time impose a greater barrier to imports, just the fallacy that had been followed by this country for half a decade until it has become well nigh universal among the commercial nations of the world. As a result of the combined action of many nations, world trade has declined from about $50,000,000,000 in 1929 to less than 12 billion for 1933. The tariff difficulty growing out of the monetary policy could have been avoided if all tariffs had been automatically reduced to the same degree that the devaluation of the dollar raised them.

Since inadequate buying power and maldistribution of buying power are inevitable by-products of a depression, barriers to trade which tend to lessen the amount of goods which a unit of money will buy are the most effective handicaps to recovery. Probably no other one thing would do as much now to revive business throughout the world as an economical means for the exchange of goods. In this respect tariffs, high transportation costs and increased costs of doing business due to the N. R. A. are all in the same class, except that the latter affects chiefly domestic recovery. To say that these measures put spending power in the hands of some consumers and thus help recovery is beclouding the issue because they do not tend to put the spending power in the hands of those who sank the lowest during the depression and thus to improve the distribution of spending power among the different classes. It is this dislocation or maldistribution which is one of the most serious handicaps to business in all depressions.

Two facts regarding which there is much confusion in the minds of American consumers and workers are, first, the cost to the consumer of the tariff, and, second, the effect on employment.

In the case of 11 commodities of which we import 9 to 57 per cent of our consumption, the total value of the domestic production is, according to data from the United States Tariff Commission, only 149 million dillars, but the additional cost to consumers because of the tariff amounts to 220 millions. On nine articles of which we import less than 10 per cent, the domestic production is worth 452 million dollars and the cost due to the tariff 230 million. For the purpose of maintaining 20 relatively inefficient industries that produce only 600 million dollars worth of products, we charge American consumers an additional 450 million dollars. The tariff affects the price not only of the portion that is imported but of all the domestic production as well.

If consumers could buy these products at a price close to cost of production, they would be able to buy so much more of these and other products that total payrolls could be very materially increased. This point may be clearer when we realize that American olive oil, for example, is protected by a 75 per cent duty but supplies less than 2 per cent of consumption. In order to prevent the destruction of this little industry American consumers paid $17 in duties for each gallon produced at home. If we could make a reciprocal agreement with Italy to admit olive oil free in return for a similar concession on wheat, the wheat which Italy could purchase with this amount of money would give work to many times the number of workmen that now find employment in the olive oil industry in this country. In addition to this the American consumers would have five millions more to spend for industrial products, which would also provide work. The inefficient industries thus fostered in this country usually pay notoriously low wages. The beet sugar industry is a good example of starvation wages in spite of a 150 per cent tariff.

"An Economic Analysis of Foreign Trade of the United States in Relation to the Tariff" lists 28 similar articles and the Tariff Commission lists 352 articles on which the advantages of foreign producers are great enough to be considered in this class. We might be better off if we imported all we use of these commodities under proper reciprocal agreements that would guarantee an equal export market for our products. On the other hand, the United States clearly possesses a competitive advantage in more than 200 different products of which it normally exports considerable amounts. A lowering of the tariff on the 352 which can not give decent working conditions in this country for concessions from other countries in the case of the 200 on which our costs are sufficiently lower to export them against foreign competition would put many more American laborers to work, would provide increased trade for railroads and shipping and would go a long way toward world-wide recovery as well as international good will.

Secretary Wallace says, "Those industries which have led the way in the trend toward higher wages in this country are the very industries which have shown the greatest ability to meet foreign competition at home and abroad. Our tariff, by fostering growth of other industries in which our capacities are less effective and in which wages are lower, has retarded the long-time tendency toward higher wages and better living conditions."

The degree to which the foreign trade problem can be worked out will determine in large measure whether American farm planning will have to assume any major proportions on a permanent basis.

4. Conditions in the Dairy Industry

Milk production on the first of January was reported to be 10 per cent under that of 1934. About half of the decrease was due to reduced cow numbers and the other half to restricted feeding resulting in a 5 per cent lower production per cow. Production per cow,

however, was low a year ago. Present production per cow is 9 per cent below January 1933 and over 10 per cent below the 1925-1932 average for January. The number of dairy cattle on farms in January of that period averaged 22,924,000, and on January 1 of this year probably slightly under 25 millions. Potentially, we still have the cows to produce 8 per cent more milk than was produced from 1925 to 1932 if there has been no improvement in the quality of cows during that period. If the slaughter due to the drought and to T. B. and Bang's Disease, as well as regular culling, has tended to eliminate the low producers, then with plentful feed we could probably produce from 10 to 12 per cent more milk than in the period from 1925 to 1932.

It is encouraging to note that the rapid increase in dairy cattle numbers from 1927, when we had about 22 millions, to over 26 millions in 1934 has at last been checked and that therefore the bottom of the dairy cow price cycle was probably reached in 1934. So far as Pennsylvania is concerned, it looks as though the low point in prices was passed in the Spring of 1933 when dairy cows were selling for 80 per cent of the 1910 to 1914 level, while now they are are about 8 per cent higher. They have, however, not risen as much as the general price level and the cycle of purchasing power has still been somewhat downward.

The prices of beef cattle rose more rapidly than the general price level and the cycle of purchasing power turned upward in the middle of 1933. Inasmuch as dairy cattle prices follow beef cattle prices more closely than the price of milk, this upturn in the purchasing power of beef cattle should be encouraging to dairymen. More rapid culling of dairy cows will no doubt result when better prices can be obtained for them when they are sold to the butcher.

The two most important factors in cow prices, along with the prices of beef cattle, are the rate of slaughter, and the rate at which heifers are added to the herds. Both of these factors would indicate that the turn in the cycle has come but that, barring unforeseen developments or unusual governmental action, no immediate rapid and sustained rise in prices for dairy cows should be anticipated. For the United States as a whole the heifers per 100 cows during the last 15 years have averaged 19. During the peak of rapid herd expansion they averaged 20.4 and in 1934 were down to 18.2. For Pennsylvania the figures are 16.4 for the 15-year average, 20 during the two years of most rapid expansion, and 16.8 during 1934.

Slaughter under federal inspection reached the low point in 1932. In 1933 it was about 600,000 above 1932, and in the first 8 months of 1934 there were 635,000 more slaughtered than in the same months of 1933. Part of this increase was due to drought relief measures and the rate may not have continued to the end of the year. This rate is still over half a million under the high rate in 1925-26 and just about the average rate of the last 12 years. These trends would indicate that production of dairy cows does not exceed elimination from herds at the present time, but on the other hand is not far enough

behind elimination to cause a real shortage of dairy cattle in the next few years. The rapid sustained rise in purchasing power which will lead to the next peak in the cycle is apparently not due for several years.

Two factors which have tended to modify the shape of the present cycle are the relation of feed to milk prices and the government purchase of cattle in the drought area and speeding up of the program for the elimination of T. B. and Bang's Disease.

During 1930 ,1931 and 1932 feed prices were very low and the prices received for dairy products still relatively high. The prices of dairy cattle, however, dropped from 237 per cent of prewar in 1929 to 114 in the Fall of 1931, and to 83 by the Fall of 1932, or to 35 per cent of the 1929 level. In the mid-west feed prices dropped very much lower than here in the east, and dairymen were encouraged not to sell cows at the low prices prevailing but to keep them and dispose of the cheap feed by feeding them. This had the effect of prolonging and extending the downward course of the cycle. Cheap feed at the time when farmers should have cut down their herds because of the declining prices that were ahead caused the downward trend in prices to continue longer and to go to a lower level than would normally have been true.

On the other hand, the government aid in disposing of cattle and present high feed prices had the effect of speeding up the culling program and may cause a minor peak in the bottom of the cycle such as occurred back in 1878 and to a lesser degree in 1892 and in 1919.

In the dairy industry much depends upon the demand for manufactured dairy products. Domestic production seems to be pretty well balanced against domestic consumption and the spread between New York and London prices is just about the 14 cent tariff. Therefore, any increase in production in this country must be met by an increased demand on the part of domestic consumers if present prices are to be maintained, and any rise above present prices must be accompanied by similar increases abroad if it is to stand any chance of being permanent.

In 1921 milk prices in Pennsylvania were practically on a butter basis. With industrial recovery and increased demand for dairy products, the milk price maintained a fairly constant spread above the butter base for about 8 years. From 1930 to the Spring of 1933 this spread was gradually narrowing until in April of 1933 the average milk price was again about on a butter basis. In a year and a half that spread has been widened to about the degree that obtained during the twenties and it is doubtful whether much increase in milk prices can be maintained unless there is a corresponding increase in the price of manufactured products. Much, therefore, depends on the amount of feed produced this summer, which will govern very largely the rate at which cows on farms will be brought back to the former level of milk production, and on industrial payrolls, with

which demand for manufactured dairy products is very closely co-related.

As a barometer in the latter field the effectiveness of the President's program for providing work for the unemployed and for the stimulation of home building and reconstruction should be closely watched. The production of non-durable consumption goods is only slightly below the 1923-25 level, but durable goods are at only about 45 per cent of that level, and contracts awarded at about 30 per cent. The building program, therefore, is the one on which to keep your eyes. An increase on that front will mean increased employment, larger payrolls, greater demand for butter, better milk prices. It will also mean increased borrowing at banks, larger turnover in bank deposits, a stimulus to the inflationary possibilities already created, higher prices in general, and higher relative prices for raw materials, of which the farmer is a major producer.

DIRECT FROM OUR FARMS TO YOU - DAIRYLEA -

DAIRYLEA DRIED SKIM MILK

All poultry rations should include liberal quantities of ***DAIRYLEA DRIED SKIM MILK.*** Also good in all rations for calves, poultry and swine. Carried by principal feed merchants throughout eastern territory.

Manufactured and Distributed by

Dairymen's League Co-operative Association

INCORPORATED

11 WEST 42nd STREET - NEW YORK, N. Y.

Better Pastures Pay Better

D. R. Dodd
Departments of Agronomy, Ohio State University and Ohio Agricultural Experiment Station

DURING the last few years there has been manifested in pasture improvement a great deal of interest on the part of farmers and experiment station and extension workers throughout the United States. A review of literature in foreign lands indicates the same sort of general interest. However it began much earlier in the European countries and pasture improvement work has advanced in those lands far beyond that in the United States.

The reason for this general interest appears to be in the fact that it has been observed that generally dairy farmers with the best pastures are those with the best net incomes, and that the extent to which good pastures are maintained is a good index to the profitableness of the farm operations. There is probably no other means of so greatly increasing the net income on the the average dairy farm at so low a cost as by pasture improvement.

The Situation.—In Ohio, and presumably also in Pennsylvania, the total area classified as pasture land is sufficient to provide more than four acres to each grazing animal unit. The average gross income from such an area is probably between two and four dollars per acre. This means that in many instances there is no net income. Generally the miscellaneous costs of up-keep—fences, etc.—will approach this gross income. If we assume that the net income is a dollar per acre, it is very evident that a large acreage would be necessary to provide a satisfactory standard of living for a farm family. The dairy farmer does not have this acreage and consequently can not tolerate an "average" pasture.

Compare this average pasture with an improved one near Columbus which produced 5,267 pounds of milk per acre. At $1.50 per hundred this gives a return of $79.00. When it is possible to produce seventy-nine dollars worth of milk from an acre by means of pasture improvement, one need not seriously worry about what it costs to improve the pasture provided the necessary funds for improvement are available and provided further that the improved production is actually going to be utilized.

Classification of Pasture Land.—If we are to consider the improvement of pastures it first becomes necessary that we classify these areas so as to know what we have at the beginning and what we expect to get after improvement. Otherwise we would not know what procedure to follow or what treatments would be justified.

In Ohio, and presumably in Pennsylvania, about one-third of our so-called pasture land is too steep and rough to get over with machinery for the purpose of treatment. Since eventually all pasture areas must be treated if they are to be continued at a profit, these steep and rough areas should be withdrawn from our pasture lands and devoted to timber. Another quarter of our pasture area is listed in the census as woodland pasture. Some experiments with this type of pasture indicate that it will produce only about half as much grass as open field pastures and that the grass produced is only about half as rich in analysis. Grazing of woodland has also very generally resulted in serious damage to the woods—in fact, so serious that the benefit received from grazing does not pay for the damage done to the trees. This area should therefore be eliminated from our pastures, which leaves only about 45 per cent of our so-called pasture area for us to further consider.

Difficulties with Adapted Pasture Areas.—Some of this remaining 45 per cent is in fairly satisfactory condition but most of it is very thin and of low productive capacity. This is due to the fact that most of our pastures were previously crop lands which were farmed for a number of years in general field crops without the addition of lime, fertilizer or farm manure. In the course of time they became so depleted that profitable crops could not be produced. At this stage they were "let go" into pasture. I say "let go" purposely because there was no attempt made to establish pasture, it being assumed that they would of their own accord develop a cover of desirable pasture plants. However, in many instances this did not happen and, due to the lack of satisfactory cover, the land became poorer, the surface soil gradually wore away and the subsoil badly eroded, rendering the land useless for agricultural purposes.

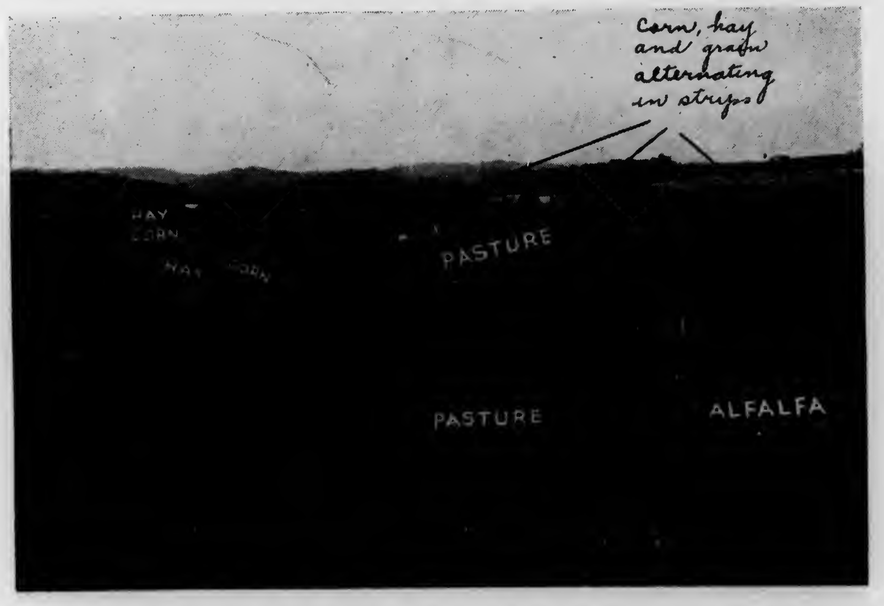


Figure 1. A Wise Use of Land Near Brownsville, Pa.

Figure 1 indicates the wise use of land in a rolling country. It may be observed that the steeper hills in the background are covered with woods, while the more moderate slopes are devoted to pasture and the gently rolling or comparatively level land along the creek bottom and along the ridge tops is devoted to crops. So long as pasture is limited to these moderate slopes or to level areas there is a possibility of maintaining a highly productive and profitable pasture area. There are areas, however, with satisfactory pasture slopes which have been neglected for so long that they can be redeemed only at great cost and with doubtful profit. Such an area is pictured in Figure 2.

FIGURE 2. A BADLY-DEPLETED PASTURE WHERE PROFIT FROM IMPROVEMENT IS DOUBTFUL.

In this case it may be observed that bluegrass is growing on the top of the slope to the right of the picture where the land is comparatively level and which area is in close proximity to an old barn from which an abundance of plant food has been supplied. This field was in corn 25 years ago and was "let go" to pasture. The surface soil had been badly removed before going into pasture and has continued to erode rather rapidly since. The broom sedge area next below the bluegrass indicates the type of vegetation where nutrients have not been supplied and where the surface soil has been about half removed. Bluegrass can not be maintained under this condition and the pasture continues to grow worse from year to year. The poverty grass area next below the broom sedge represents a further degree of sheet erosion and is probably the extreme condition under which pasture improvement would be justified. When the pasture field has been

neglected so long as to approach the gullying stage pictured at the bottom of the figure, profitable pasture improvement is no longer possible, since here sufficient moisture can not be maintained due to the lack of organic matter and too shallow soil to support a satisfactory type of vegetation. It is possible, however, to improve the poverty grass area, as was done in a section of this particular area, with a liberal treatment of lime and superphosphate. In the course of three years the poverty grass had largely given way to bluegrass and white clover as indicated in figure 3. It should be kept in mind, however, that it is usually much more prafitable to improve good pasture areas than to attempt to redeem those which have been depleted to the extent that half or more of the ground is barren of vegetation. Under this latter condition the returns on the dollar invested are very low. Frequently it would be found more advisable to plant such areas to locust trees and other timber, even though they do have a satisfactory pasture slope, rather than to attempt to redeem them for pasture. The gradual sheet erosion, which is not very generally observed, is such a serious problem on many of our pasture areas that one may be entirely justified in treating for the purpose of saving the soil and maintaining the selling price of the farm. Here, however, we wish to justify our pasture improvement program by additional gain rather than upon the prevention of loss.

FIGURE 3. THE RESULT OF LIME AND SUPERPHOSPHATE TO AN AREA THAT THREE YEARS BEFORE WAS 60 PER CENT BARE GROUND AND 40 PER CENT POVERTY GRASS AND WEEDS WITH A SPRINKLING OF BLUEGRASS AND CLOVER PLANTS.

THE PROBLEM.—The pasture problem on most dairy farms may be stated as one of how to produce sufficient quantity of high quality pasture at the time it is needed and how to graze the pasture so as not to destroy the beneficial effects of treatment. For this purpose we have available the sloping adapted pasture lands not suited to crop

Figure 1 indicates the wise use of land in a rolling country. It may be observed that the steeper hills in the background are covered with woods, while the more moderate slopes are devoted to pasture and the gently rolling or comparatively level land along the creek bottom and along the ridge tops is devoted to crops. So long as pasture is limited to these moderate slopes or to level areas there is a possibility of maintaining a highly productive and profitable pasture area. There are areas, however, with satisfactory pasture slopes which have been neglected for so long that they can be redeemed only at great cost and with doubtful profit. Such an area is pictured in Figure 2.

FIGURE 2. A BADLY-DEPLETED PASTURE WHERE PROFIT FROM IMPROVEMENT IS DOUBTFUL.

In this case it may be observed that bluegrass is growing on the top of the slope to the right of the picture where the land is comparatively level and which area is in close proximity to an old barn from which an abundance of plant food has been supplied. This field was in corn 25 years ago and was "let go" to pasture. The surface soil had been badly removed before going into pasture and has continued to erode rather rapidly since. The broom sedge area next below the bluegrass indicates the type of vegetation where nutrients have not been supplied and where the surface soil has been about half removed. Bluegrass can not be maintained under this condition and the pasture continues to grow worse from year to year. The poverty grass area next below the broom sedge represents a further degree of sheet erosion and is probably the extreme condition under which pasture improvement would be justified. When the pasture field has been

neglected so long as to approach the gullying stage pictured at the bottom of the figure, profitable pasture improvement is no longer possible, since here sufficient moisture can not be maintained due to the lack of organic matter and too shallow soil to support a satisfactory type of vegetation. It is possible, however, to improve the poverty grass area, as was done in a section of this particular area, with a liberal treatment of lime and superphosphate. In the course of three years the poverty grass had largely given way to bluegrass and white clover as indicated in figure 3. It should be kept in mind, however, that it is usually much more prafitable to improve good pasture areas than to attempt to redeem those which have been depleted to the extent that half or more of the ground is barren of vegetation. Under this latter condition the returns on the dollar invested are very low. Frequently it would be found more advisable to plant such areas to locust trees and other timber, even though they do have a satisfactory pasture slope, rather than to attempt to redeem them for pasture. The gradual sheet erosion, which is not very generally observed, is such a serious problem on many of our pasture areas that one may be entirely justified in treating for the purpose of saving the soil and maintaining the selling price of the farm. Here, however, we wish to justify our pasture improvement program by additional gain rather than upon the prevention of loss.

FIGURE 3. THE RESULT OF LIME AND SUPERPHOSPHATE TO AN AREA THAT THREE YEARS BEFORE WAS 60 PER CENT BARE GROUND AND 40 PER CENT POVERTY GRASS AND WEEDS WITH A SPRINKLING OF BLUEGRASS AND CLOVER PLANTS.

THE PROBLEM.—The pasture problem on most dairy farms may be stated as one of how to produce sufficient quantity of high quality pasture at the time it is needed and how to graze the pasture so as not to destroy the beneficial effects of treatment. For this purpose we have available the sloping adapted pasture lands not suited to crop

INTENTIONAL SECOND EXPOSURE

production and the more level general crop area. I include this general crop area because we have an abundance of evidence which indicates that there *is no land too good for pasture on a dairy farm* if it can be so utilized and if it is not necessary to the production of sufficient feeds for wintering the dairy animals. It will pay better as pasture than in the production of crops for sale. For example, one farmer near Youngstown, Ohio, during 1934, grazed 29 head of dairy cattle on 25 acres for nearly the entire grazing season. A very successful farmer in the vicinity of Lexington, Kentucky, recently asserted that most farmers are laboring under the impression that the amount of money they make depends upon how much they plow, whereas he had learned that the amount of money he makes depends upon how little he plows. That is, he had learned that there is more money to be made by attention to pastures and good meadows than to the production of general crops for market.

Many experiments have shown conclusively that if the pasture can be properly utilized by good cows, one is justified in spending as much or more for lime and plant food materials on pasture land as on crop land. This is indicated in Table 1 which shows a comparison of the production obtained from a number of cooperative farm pasture tests in Ohio and a corn, wheat and mixed hay rotation at the Southeastern Ohio Experiment Farm, located at about the center of the territory over which the cooperative pasture tests were distributed. The fertilization, while not exactly the same, would be generally regarded as favorable to the rotation.

TABLE 1. YIELD OF DRY MATTER AND PROTEIN PER ACRE IN 3-YEAR ROTATION OF CORN, WHEAT AND MIXED MEADOW AND IN PERMANENT PASTURE.

	Rotation			*Pasture		
	Dry Matter	Protein	Average Annual Cost of Production	Dry Matter	Protein	Average Annual Cost of Production
1931	5030	377		4902	557	
1932	5128	405		4516	513	
1933	6030	443		5835	663	
Average	5396	408	$20.68	5084	578	$11.59

*Pasture figures averaged from 43 tests in 1931; 36 in 1932; and 34 in 1933.

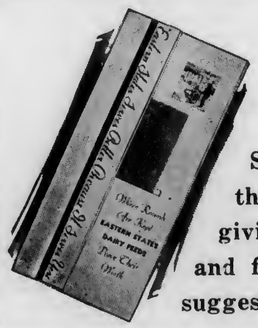
It may be observed that while the rotation slightly exceeded in dry matter, pasture exceeded in protein and the cost of production was decidedly less.

LIMITATIONS OF PERMANENT PASTURES.—It might be assumed from what has thus far been said that one can make more money from permanent pasture area and that the only problem is that of applying lime and nutrients for the purpose of increasing production. This, however, is not the case since we must consider also other factors which limit the time and amount of production.

Most of our ordinary pasture plants have a tendency to produce their maximum growth during the early part of the season and become more or less dormant during the dry weather of July and Au-

Eastern States Milk Stands a Better Chance to be Profitable

The greatest reason why so many Eastern dairymen use Eastern States Dairy Feeds consistently is because the milk made on these feeds stands a better chance to be profitable. Milk that has no chance to be profitable because the feed cost was out of line with the milk it made is not the kind of milk Eastern States members choose to produce. That is why they have made it the prime purpose of their cooperative association to select and mill for them the sort of dairy rations that will prove dependable in making good cows produce well enough to make each hundred pounds of milk cost as little as is practical in relation to the cost of grain. That the formulas, ingredients, milling practices and distribution system back of the EASTERN STATES FULPAIL, SIXTEEN and FITTING RATION are all aimed at the dairyman's own goal—profitable milk—is being demonstrated on thousands of farms every day. You, too, will find this cooperative dairy feed service worthy of your confidence.



Send for this folder giving formulas and feeding suggestions

The Exchange also manufactures and distributes a line of dairy feeds intended especially for use on farms where cows are kept as a side line. Known as HIGHLAND FEEDS, they are available in 12, 16 and 20 percent protein levels. The Exchange also manufactures a complete line of poultry feeds which are designed to give excellent results at low unit cost.

Eastern States Farmers' Exchange

Headquarters: Springfield, Mass.

gust. Additional fertilizers may be expected to cause such plants to make greater growth at their normal time of growth. It has been observed that the length of the period over which this growth is normally taking place may be somewhat lengthened and that the feeding value of the herbage may be decidedly increased. For example, it was found in one of our grazing experiments that the equivalent of 16 pounds of dry grass from a fertilized area was required to produce a pound of beef; whereas in the unfertilized area 21 pounds were required. However, treatment will not make these pastures produce much more at a time or under conditions which are otherwise unfavorable for production.

In one experiment with sheep, the close grazing during the late fall and winter up until May 1 so injured the vigor of the pasture plants that the production during the balance of the season was less than half of what was anticipated by comparison with the adjoining areas which had not been grazed.

In another area a check was made upon the effect of holding cows off of the pasture until it has made a good start in the spring. The effect of turning dairy cows on as soon as growth started, compared with a delay of ten days, resulted in a reduction of the total season's production on a dry matter basis from 4226 to 3349 pounds and of the protein from 707 to 536 pounds.

The fact that treatments have not given greatly increased production in mid-season has frequently been held as an objection to pasture improvement This is not justifiable since we normally attempt to utilize the production of any crop at the time that it will grow, and it is much better business to attempt to grow an additional pasture at the time we need it in mid-season rather than to cut down the production of our pasture in the early part of the season to match a poor mid-season production. We have available a number of crops such as Sudan grass, alfalfa and early cut meadows which will take care of this mid-season production. This is one of our distinct pasture problems and will receive further consideration a little later.

Another factor affecting production is that of rainfall. In one of our experiments it was found that in 1929 we had 21% of the total season's production in July and 14% in August; while in 1930 these same plots gave us only 7% for July and 4% for August. A check on the rainfall indicates that the chief reason for the low production in July and August was a lack of sufficient moisture. The moisture content of low lands is normally much higher than that of our higher lands and much heavier mid-season production might therefore be expected from such areas. It would seem therefore advisable to devote a certain amount of our more level bottom land to permanent pasture if we expect to get July or August production.

Maintaining pasture plants in a vegetative stage by preventing them from going to seed, either by heavier grazing or by clipping with a mower, also serves to lengthen the normal time of production and give heavier production in July and August.

How Much Shall We Improve?—The extent to which we are justified in improving the permanent pasture area will depend upon how much production is needed and how much money is available for the improvement. The extent to which various treatments can be depended upon to bring about a gradual change in vegetation is indicated in figure 3, which gives the percentage of clover, tame grass, wild grass, weeds and bare ground for areas treated in the manners indicated, three years after treatment had been made. The change in vegetation has been due to the treatment since no new seed was applied.

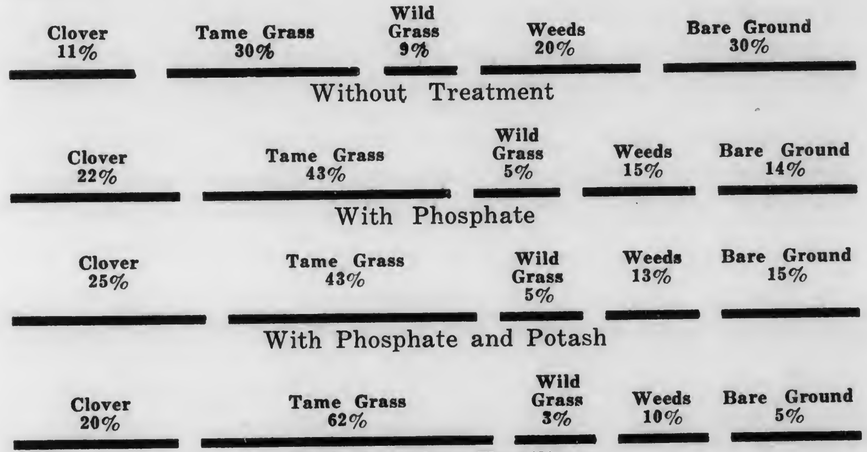


Figure 4. Average Composition of Soil Cover and Bare Ground in 1933 on 44 Pasture Tests Treated in 1931 as Indicated, Except for Complete Fertilizer Where Nitrogen Has Been Applied

Annually.

Potash did not continue to hold its advantage during 1934 as indicated in a drop in the clover content from 25% to 17%. At no time was the advantage of potash marked in total production. While the effect of the complete fertilizer is very evident in further increasing the percent of desirable pasture plants and was also very evident in the total yield, which was advanced by some 2000 pounds, the cost of the complete fertilizer was more than double that of the lime-phosphate and the cost per unit of production was not reduced.

Light applications of nitrogenous fertilizer were not found effective and the heavier application, supplying about 50 pounds of nitrogen per acre, costs in the neighborhood of $5.00. This, as a general rule, our Ohio farmers are slow to invest, probably because they do not have it to invest and probably also because of the fact that 19 out of 20 have not yet accomplished the improvement possible by the lower investment in lime and phosphorus only. If nitrogen is to be used, and in many instances it is justified, it should come only after

the sod has been improved by the use of lime and phosphate and probably with the addition of potash with the nitrogen. While this more than doubles the cost of treatment per acre, if by so doing one can avoid the purchase of concentrates or hay, it will be found very much more profitable. While the nitrogen in our experiments reduced the percentage of clover ,it increased the total digestible nutrients and total protein content materially. It should be borne in mind always that the advantage of treatment is to come only when the increased production is utilized by good livestock and if the lime-phosphate treatment is giving all the production that one can utilize, certainly there is no justification for the use of nitrogen in addition.

Experiments with manure indicate that it is not a satisfactory substitute for lime but may be used in addition to lime and supplemented with 400 pounds of superphosphate per acre. Cattle object to the manured grass but if the whole area is treated this is to some degree overcome. The use of manure in place of potash and a portion of the phosphate and nitrogen is to be encouraged on the dairy farm where surplus manure is available. When the supply is limiter it should first go on general crop land.

FIGURE 5. WHITE CLOVER RESULTING FROM TREATMENT OF PHOSPHATE AND POTASH. AREA TO THE RIGHT NOT TREATED, AREA TO THE LEFT TREATED.

Figure 5 shows a good illustration of the effect of phosphate and potash in increasing the white clover content of the pasture. However, in our experiments, white clover has been rather treacherous. It is with us one or two years and then gone the next. It also appears to suffer more from dry weather than grass. We can not, therefore, depend upon a uniform high content of white clover but do feel that we get sufficient increase of it in the pasture to thoroughly justify its encouragement by use of the lime-phosphate treatment.

THE OHIO PROGRAM.—Figure 6 gives the Ohio program for the production of uniform high quality pasture throughout the season for 24 dairy cows. There are a number of substitutions that can be made for certain of the areas illustrated in this figure. For example the Sudan grass might well be replaced with an alfalfa-timothy meadow

or by an early cut mixed hay meadow. Where special crops are depended upon the early rye might be replaced by early grazing of second year sweet clover. Other substitutions may be developed to meet the peculiar conditions existing on any farm. The important thing is to keep in mind that there is a distinct problem of planning and management involved and that we must recognize *when* various types of pasture will produce and how they can be fitted together so as to provide the uniform high quality production.

In the illustration in figure 6 it is assumed that area 1 of the permanent pasture will be used from year to year for the same purpose, that this will be fenced separately from the main grazing area, and that the appplication of nitrogenous fertilizer will be sufficiently heavy to supply at least 40 pounds of nitrogen per acre. Area 1 will also receive lime and phosphate as indicated for area 2. This area will be grazed at three different times as indicated in the figure. It is important that the grass be given a good start again before successive grazings. Desirable growth for this, as well as the main grazing area, is about four inches from which it may be grazed to an inch and a half. If the grass is kept at such a height the production will be of higher quality and more constant and the problem of weeds and uneaten patches of grass will be less serious.

Area 2, which is for the main pasture season, receives lime and phosphate, the lime in such quantity as may be required to keep the

RIVERMEAD FARM

HOME OF

Lathrop Star Homestead

Leading Mt. Hope Index sire of the breed last year—670 lbs. fat, 4.18%, 16,020 lbs. milk, on 8 pairs.
His descendants have dominated the 4-H show at Harrisburg the past three years.

ALSO IN SERVICE

King Bessie Ormsby Boast

A coming son of King Bessie from the grand champion, Minerva Beets Posch Burke.

"Accredited for both tuberculosis and Bang's disease"

RAYMOND B. ARNOLD

Milan (Bradford County) Pennsylvania

pH above 5.7, (a lime requirement of not over 1T of burned lime per A), and the phosphate at about 400 to 500 pounds per acre at intervals of four to six years as may be necessary, and this cut into the ground one to two inches deep by means of a disk drill; the ideal time of application being when the ground is soft enough to permit such cutting between the first of October and the first of April.

The division of area 3 into two sections so as to graze alternately is a distinct advantage. It requires about five or six weeks for Sudan grass to reach a stage for grazing. The date of seeding should therefore be timed so as to bring the Sudan into production when needed. Twenty-five to thirty pounds per acre is a good seeding rate.

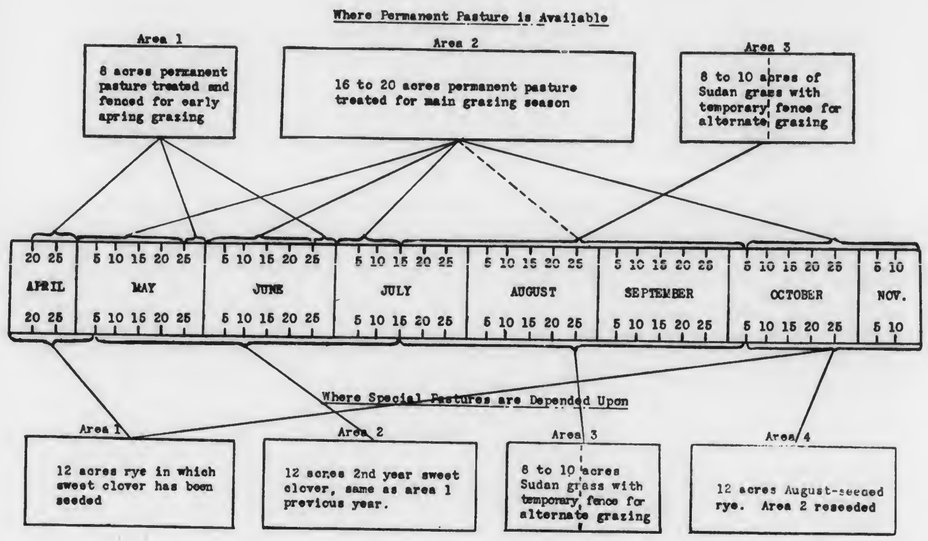

Where Permanent Pasture is Available
Area 1
8 acres permanent pasture treated and fenced for early spring grazing
Area 2
16 to 20 acres permanent pasture treated for main grazing season
Area 3
8 to 10 acres of Sudan grass with temporary fence for alternate grazing
20 25 APRIL 5 10 15 20 25
5 10 15 20 25 MAY
5 10 15 20 25 JUNE
5 10 15 20 25 JULY
5 10 15 20 25 AUGUST
5 10 15 20 25 SEPTEMBER
5 10 15 20 25 OCTOBER
5 10 NOV.
Where Special Pastures are Depended Upon
Area 1
12 acres rye in which sweet clover has been seeded
Area 2
12 acres 2nd year sweet clover, same as area 1 previous year.
Area 3
8 to 10 acres Sudan grass with temporary fence for alternate grazing
Area 4
12 acres August-seeded rye. Area 2 reseeded

FIGURE 6. SUGGESTED PLANS FOR PASTURE FOR TWENTY-FOUR COWS FOR THE ENTIRE GRAZING SEASON.

Note: Dates above applicable to Columbus, Ohio, which is in about the same latitude as the southern tier of Pennsylvania counties. Farther north and at higher altitudes a shorter pasture season must be expected.

In the case of special pastures it should be kept in mind that rather high production is more profitable than low production and that therefore liberal fertilization of these special areas should be followed. By working out some plan after the type of these illustrations but suited to the needs of the individual farm, it is possible to greatly reduce the actual cost of producing milk on most farms since otherwise we run into periods of low pasture production, and with the decline of pasture, down goes the milk production, up goes the feed requirements, and the margin of profit disappears.

Projects of the A. A. A.

LOUIS MCL. MERRYMAN, Dairy Section, A. A. A.

MR. CHAIRMAN, LADIES AND GENTLEMEN:

I believe that this audience is as much interested in Bang's Disease eradication as in any other project the A. A. A. has undertaken. Pennsylvania has always led in Bang's eradication work and you have today 7,452 accredited Bang's disease free herds, with 4,600 herds containing over 80,000 cattle under supervision. There are over 2,500 of these herds which have passed one or more clean tests. There have been in America, up to December 1, 27,672 herds tested, containing 518,566 cattle with 72,942 reactors. There are on the waiting list 1,341,699 cattle. In Pennsylvania through January 22, they have tested 1,891 herds containing 36,837 cattle, with 4,530 reactors. There are on the waiting list 2,406 herds containing 38,544 cattle. They have tested in the first three weeks in January, 992 herds containing 13,349 cattle. There are 35,000 herds signed up in Minnesota and over 30,000 in Wisconsin, and they tested 137,000 cattle in Wisconsin, with 21,000 reactors. The price of canner cows is now going up and this will increase the work. We find that a great amount of Bang work is being done in the West because the cost of feed is high there and a large part of the farmers' income comes from the sale of surplus stock. Cattle can no longer be sold from herds which are not disease free. This same condition prevails in Western Pennsylvania and we find the work going on much more rapidly there than in Eastern Pennsylvania, where the milk is the main object and replacements have to be purchased. In some cases it is advisable for the producer to have the herd tested under the state plan and practice what sanitation and quarantine he can until he is ready to take the loss which will be entailed on disposing of all his reactors at once.

One thing I believe all dairy farmers who are making fluid milk should have impressed on their minds is that a herd free of Bang's Disease will in the main be a regular breeding herd, and a herd infected with Bang's Disease is a very irregular breeding herd. It is impossible to maintain an even flow of milk from a Bang's Disease herd unless replacements are frequently made. The loss of production is great in any infected herd, but it is much more expensive in a herd where on account of the fluid milk demands, an even production must be maintained.

From the money made available by the LaFollette Amendment to the Jones-Connally Act, in addition to the tuberculosis and Bang's Disease work, there has also been purchased a large amount of butter and cheese, and to these funds was added money from the Federal Surplus Relief Corporation. The total amount of butter purchased and delivered by the Government, through the Agricultural Adjustment Administration and the Federal Surplus Relief Corporation, to

January 15, 1935, amounts to 61,368,000 pounds, for which $14,472,-665 have been paid. There still remains to be delivered on contract orders a total of 580,000 pounds of butter.

Butter is now selling at over 34 cents, 92-score Chicago. Therefore, the purchase of butter at this time when there is enough available for relief purposes, would be simply sending our good money to New Zealand. In fact, some foreign butter is now here and more is on the way. This price of butter is occasioned by the drought, and subsequent purchase and slaughter of many animals by the Government, and the high cost of feed.

The cheese purchases distributed for relief amount to 8,391,845 pounds to January 15, 1935. The cost of this cheese was $1,328,190. There still remains 9,511,379 pounds of contracted cheese to be delivered and paid for. Thus, in all, the Adjustment Administration cheese removal program amounts to about 18 million pounds, some of it being Swiss cheese which was taken off the shelves of producers' country factories last summer by manufacturing and processing agencies at the request of the Government. The relief agencies are unable to handle the large drums and blocks of Swiss cheese, so it had to be processed into convenient sized packages.

Relief purchases have also been made of evaporated milk by the Adjustment Administration for distribution to relief agencies. A total of 37,618,800 pounds of evaporated milk were purchased. Dry skim milk to the amount of 3,081,250 pounds has also been diverted to relief work.

However, in spite of the fact that there have been purchased approximately 8,000,000 cattle from drought relief funds, a considerable number of which were dairy cows, but not good dairy cows, and also there have been slaughtered 134,825 cattle for Bang's Disease, the great majority of which were dairy cows, some of them good producers, and that they will now kill approximately 75,000 Bang reactors monthly, there are still enough good cows in the U. S. to produce enough milk to knock the price of butter down if the price of feed will drop so that it is profitable to work them harder. One thing that may make this over-production is that much land formerly used for cotton and tobacco is now turned to forage crops and in the Central West the corn land will be growing dairy feed.

In our own country we had a drought a few years back and after it was over, I noticed my pastures did better than they had before. In fact last year in my section we enjoyed the best pasture and hay season we have had for years. This is also markedly true of all Virginia and Southeastern Pennsylvania and some of the Carolinas, and Eastern and middle Tennessee, and while I am no weather prophet, a similar condition might be expected later in the North Central states, and the snowstorm recently has already made that a definite possibility. This condition makes the other work of the Dairy Section of the A. A. A. of interest to you gentlemen. By that I allude to the possibility of production control and the marketing agreements.

Our estimates in the Department indicate to us that in spite of the tremendous cut in cattle population and the low production per cow at present, there are potential reserves of production ability left because culls have been eliminated and only the better cattle left. Hence perhaps at the end of 1935 we may find ourselves back to normal production volume again. If that happens, the result in prices will depend on consumer buying power and the degree to which it has been restored by the program of social security advanced by the Government, plus the business recovery now expected. If, however, no rapid recovery takes place, we may find ourselves pinched again with heavy surpluses and faced with bitter competition from substitutes.

Looking at it broadly and progressively, some of the Midwestern dairymen have written in urging that some national dairy adjustment program be again offered or discussed. They believe it is unwise to drift in dairying while other lines of agriculture trim their sails to a slower breeze. They see a new light on the subject. They discuss processing taxes in a limited amount, using the money to buy and distribute surplus of dairy products for relief. They should be reminded that two things under the present Adjustment Act must be understood before a production control and benefit payment or processing tax program is started by an industry. That is, the difference between current farm prices and parity prices must be wide enough to permit a processing tax levy per pound of butterfat, and that individual contracts to engage in adjustment are essential to a well-rounded benefit-payment and processing tax program. Restriction of sales of butterfat was not popular in 1933, although it finally came from natural forces through the drought. Not only did the dairyman have to cut his sales, but he culled his herds to save on feed. And for that loss forced upon him he had no margin left to him through benefit payments to help him when he needed it most. He did receive great sums of money paid in salvage purchases of drought relief cattle and calves, a service that the Government instituted last summer. The Government bought more than seven million head, of which it is said about twenty per cent were dairy cows.

Some of the undertakings of the Agricultural Adjustment Administration related to dairying should be mentioned. I may preface this brief discussion by saying that we would indeed have been happy to have found a practical way to be of still wider service to more dairy farmers. Several projects were started by dairy groups and dropped as impractical or hard to operate. Among these were a marketing agreement for butter and another for cheese. We also had an ice cream manufacturers' agreement on the carpet early in 1933, which never materialized. Its proposals were not of great direct help to farmers.

Two manufactured products agreements came through safely. They were for evaporated milk and dry skim milk, respectively. The immediate causes of the evaporated milk agreement were rapidly increasing deliveries at plants, increasing stocks in manufacturers'

hands, and some unwise trade practices. The evaporated milk agreement was relatively easy to handle because there are only 41 manufacturers in the country operating 160 plants in 27 states, using about 4 per cent of the total milk purchased from producers. Stability and firmer producers' prices at plants have resulted in the main through this agreement, which was recently amended to permit a temporary advance in the minimum wholesale case price until such time as a thorough overhauling of the agreement could be effected.

From January 1934 through October of 1934, the average price paid producers at evaporated plants for 3.5 per cent milk was $1.10 per hundred. Prices as low as 80 cents and an average of about 90 cents per hundred were paid farmers in 1933 previous to the agreement. The price in the agreement which manufacturers pay producers is based on a formula blending butter and cheese quotations. While prices to farmers gained considerably, the wholesale prices and the resulting retail prices for canned milk remained at a fairly constant level during the whole period. There is a producers' committee set up to confer on price schedules with the manufacturers in the agreement.

The dry skim milk agreement is participated in by many cooperative associations making this by-product, as well as private companies. They file a set of selling prices on different quantities with the managing agent, under the agreement. The prices may be modified with the approval of the Secretary. The sellers agree not to engage in discounting or favorite treatment to special customers. Differentials for quality are specified uniformly in the agreement. The prices of dry skim milk have strengthened since the agreement was effective, or from about 3½ cents to 5½ cents per pound, from the low point prior to the agreement through the first eight months of 1934. Incidental to the agreement some experimental work with special family packages of dry skim milk suitable for wider use in households has been undertaken by the trade in cooperation with agents of the Secretary of Agriculture. More human use of this product, rich in protein, healthful and economical, is promised as a result.

Surplus removal was a major project of the Government to aid dairymen during 1933 and early 1934. First, by means of an industry arrangement with the Secretary of Agriculture for purchases of butter on primary markets, and later through money appropriated by the Jones-Connally Act, it has been possible to deliver huge stores of butter and cheese to the needy and unemployed. This furnished them with a necessary food, helped to keep their consuming habits fixed on dairy products, and relieved the industry of the worst surplus that had faced it in two decades.

Mention should be made of fluid milk licenses which the Adjustment Administration has in effect on some 48 milk sheds. This activity has really taken most of our energy, and a vast amount of perplexing excitement has arisen from this interesting line of work. Out of it has come a clear sense of the need of cooperative effort between the states

and the Federal Government to meet the situation on many markets.

Our estimates indicate that some real gains in prices and income have come to producers through the Federal licenses, and some educational work on establishing sounder and safer methods of milk marketing have resulted. The latest general estimate we have is that on 22 fluid milk markets under Federal license, a total increase in income through increased Class I prices only, amounts to well over 14 million dollars. This is taking each license for the time it has operated and up to January 1, 1935.

Keeping the proper relation between fluid milk prices and the prices of other dairy products competing with fluid milk, has been a very important problem. Maintaining the true cooperative element on markets and retaining the function of the cooperative to serve its members well has not been lost sight of in the Dairy Section. Another economic advantage of a license is the added stability to the market. The producer can safely budget his expenses if he knows approximately how much his milk cheque will be each month and the distributor knowing his competitor will have to pay the same as he does for milk, is in a much more secure position.

There is a problem in connection with milk licenses which we must all face. The trend of judicial decisions in various cases leads us to believe that the courts may hold generally if the milk on the market is all intrastate, it is subject only to state control; and if all interstate, subject to Federal control only. Therefore, the problem of coordinated state and Federal control is immediate.

I quote from a speech made by Mr. Lauterbach:

"The policy of this Government in working in coordinated effort with the states is familiar to us all. It might be well to review briefly this field to see what has been accomplished and then apply it to the question before us of "Coordinated State-Federal Milk Control." One reason is that in a time of crisis when milk producers, indeed the entire milk industry, are in need of the strong helping hand of state and Federal governments, the program is threatened because of difficulties that arise in the field of intrastate milk and in the field of interstate milk."

In general it is hoped that it will be possible to so coordinate the state and Federal license that the market can be successfully administered. At this time I particularly want to call your attention to the fact that the Dairy Section is supported and paid for by the dairy farmers and the public in general, and was especially created to give the producer of dairy products a living wage if possible. There has been much talk of prices of dairy products in the deficit areas, as compared with those in the great producing areas, and at times it has been said that there was a desire to cut the price to the fluid milk producer to help the butter producer.

While there is an excellent per capita consumption of milk in this area, I believe that the possibility of evaporated milk and Western cream coming in should always be considered in setting the price of the fluid milk.

ANNUAL BUSINESS MEETING

The annual business meeting was held January 24, 1935, in Room F, State Show Building, Harrisburg. President Warren Whittier presided.

The minutes of the preceding meeting were read and approved.

The Treasurer's report, showing a balance of $368.15 was given and accepted.

RECEIPTS:

Balance carried forward January 9, 1934	$224.68	
Banquet, January 18, 1934	167.00	
Advertisements in 1934 Annual Report	291.64	
Membership during 1934 (430)	430.00	$1,113.32

EXPENDITURES:

Banquet	$221.08	
Stationery, Postage and Printing	89.82	
Stenographic help	10.20	
Speakers at Annual Meeting	37.00	
Ribbons	130.88	
Annual Report	255.77	
Tax on checks	.42	$ 745.17

Balance January 15, 1935 ..... $ 368.15

The Treasurer's accounts were audited by A. A. Raudabaugh and R. H. Olmstead. The report of the auditing committee was accepted and the committee dismissed with thanks.

Officers elected for the ensuing year are as follows:

President ... Warren Whittier, Lonicera Farms, Douglasville, Pa.
1st Vice Pres. ... Ray L. Williams, Mgr., Many Springs Farm, New Centerville, Pa.
2nd Vice Pres. ... Mrs. E. R. Fritsche, Sycamore Farms, Douglasville, Pa.
3rd Vice Pres. ... H. A. Snyder, Loyalmeade Farm, Montoursville, Pa.
Secretary-Treasurer ... C. R. Gearhart, Dairy Building, State College, Pa.
Asst. Secretary ... F. M. Twining, 219 N. Broad St., Philadelphia, Pa.

There was an educational meeting preceding and following the business meeting. The addresses are included in this report.

RESOLUTIONS—1935

The following resolutions were adopted on the recommendations of the Resolutions Committee: Raymond B. Arnold, Joseph O. Canby, W. S. Wise, E. B. Fitts, and Dr. E. S. Deubler:

FUNDS FOR EXPERIMENT STATION

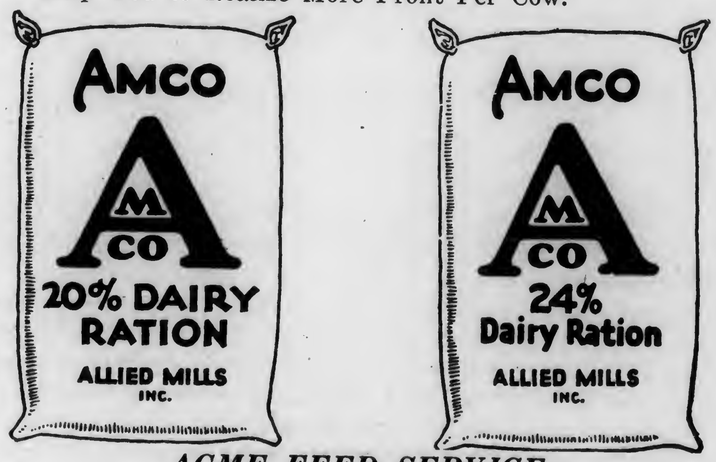
WHEREAS the Public Agencies Committee of the State Council of Farm Organizations after a careful study, discovered that the budget for the Pennsylvania State College Experiment Station for the year 1933-1934 was but $134,000. This compares with $1,495,000 for New York State, $651,000 for Ohio and $508,000 for New Jersey during the same period.

AND WHEREAS the above named committee, in recognition of the urgent need for more work in agricultural research, presented an itemized budget calling for an increase of $63,000 in the appropriation for research at the Agricultural Experiment Station of The Pennsylvania State College for the year 1935-1936.

THEREFORE BE IT RESOLVED that the Pennsylvania Dairymen's Association approve the budget calling for an increased appropriation.

MORE MILK per COW

1935 Methods Demand Highest Production at Lowest Possible Cost. AMCO OPEN FOMULA Dairy Feeds Help You to Realize More Profit Per Cow.



ACME FEED SERVICE
(Division of Allied Mills, Inc.)
DISTRICT OFFICE MUNCY, PENNSYLVANIA

MILK REGULATION

WHEREAS the Public Agencies Committee of the State Council of Farm Organizations have recommended that all laws pertaining to the regulation of the production, processing and marketing of all milk products within the State of Pennsylvania except those pertaining strictly to public health, be centralized in the Department of Agriculture.

THEREFORE BE IT RESOLVED that the Pennsylvania Dairymen's Association endorse the above recommendation.

CATTLE COMING FROM OTHER STATES TO BE FROM HERDS TESTED FOR BANG'S DISEASE

WHEREAS, extensive testing is being done by Pennsylvania dairymen in order to eradicate Bang's Disease from their herds, and whereas, there is a growing need of more adequate protection from outside sources of new infection, therefore

BE IT RESOLVED, that the Pennsylvania Dairymen's Association recommend to the Bureau of Animal Industry that regulations be put into effect requiring that all cattle coming from other states for breeding or milking purposes that are not from accredited Bang's Disease free herds must come from herds where all animals have been tested and be subject to a 45-day guarantee and retest by the Bureau of Animal Industry.

BE IT FURTHER RESOLVED, that the Pennsylvania Dairymen's Association commend the Bureau of Animal Industry for the excellent work it has done in disease eradication and in protecting and safeguarding the livestock interests of our State.

BANG'S DISEASE ELIMINATION

WHEREAS, the Resolution Committee have received many resolutions and suggestions sponsored by county and local Breed and Dairymen's Associations relating to the control of Bang's Disease in the State of Pennsylvania, and

WHEREAS, the several suggestions being similar in import and intent, the Committee felt it desirable to attempt to combine them in one resolution,

THEREFORE BE IT RESOLVED, that we urge the Hon. J. Hansel French, Secretary of Agriculture to study the Bang's Disease problem and make provisions in his budget for adequate funds to cooperate with the Federal Authorities in speeding up testing of all dairy cattle and appraisement and slaughter of reactors, and disinfection of premises, so that advantage may be promptly taken of Federal appropriations for Bang's Disease testing and indemnity, and

BE IT FURTHER RESOLVED, that if the Secretary decides that in his judgment the State should make appropriation for indemnity for Bang's Disease reactors slaughtered, that this association extend its full cooperation in an effort to secure adequate appropriations.

URGING IMPORT DUTY ON REGISTERED DAIRY CATTLE FROM OTHER COUNTRIES

WHEREAS, the United States Government, some years ago deemed it advisable to admit free of duty, pure bred dairy cattle with registration certificates, for the purpose of trying to encourage our farmers to improve their dairy cattle, and

WHEREAS, the depression has brought about a congestion in the dairy cattle and dairy products situation in our country resulting in a demoralization of markets and low prices, and

WHEREAS, many thousands of registered dairy cattle are annually brought into the United States, duty free, thereby making farming on a profit-making basis more difficult.

THEREFORE BE IT RESOLVED that the Pennsylvania Dairymen's Association petition our Governor, the Hon. George H. Earle, our United States Senators, the Hon. James J. Davis and the Hon. Joseph F. Guffey, our representatives in Congress in our various districts as well as Mr. A. H. Lauterbach of the A. A. A., that they use every effort to have such legislation enacted as will relieve the breeders of registered dairy cattle of this competition by placing a fair and equitable import duty on all dairy cattle admitted, and

BE IT FURTHER RESOLVED, that our Secretary send a copy of these resolutions to our Governor, the Hon. George H. Earle and to our United States Senators, the Hon. James J. Davis and the Hon. Joseph F. Guffey as well as Mr. A. H. Lauterbach of the A. A. A., Washington, D. C., praying for speedy action on this matter in order that our milk and pure bred cattle market may yet be improved.

There being no further business, the educational program continued.

C. R. GEARHART, *Secretary.*

NOTE: Copies of the resolutions were sent to the proper authorities with the request that they support the resolutions.

TENTH ANNUAL BANQUET

Pennsylvania Dairymen's Association

Fifth Street Methodist Church
HARRISBURG, PA.

Thursday, January 24, 1935

WARREN F. WHITTIER, *Toastmaster*

ADDRESSES BY

HON. J. HANSELL FRENCH
Secretary of Agriculture of Pennsylvania

LOUIS McL. MERRYMAN
Washington, D. C.

HERD TEST AWARDS

MILK AWARDS

ENTERTAINMENT

John E. Baker—The Appealing Power of Music

and Fifth Street Methodist Church Orchestra

MERIT AWARDS

Presented at the Banquet

Trophies awarded at the Pennsylvania Dairymen's Association banquet, January 24, 1935, in Dairy Herd Improvement Association work, Herd Test work, and Register of Merit work.

AWARDS BY BREED ASSOCIATIONS

Pennsylvania Federation of Holstein Clubs:

A shield to Ivo V. Otto, Carlisle, Pa.
Highest known 15-year D. H. I. A. average—
19 cows, lbs. milk 13,119, lbs. fat 447.3.

A shield to the Westmoreland County Home, Greensburg, Pa.
High D. H. I. A. herd—lbs. milk 16,578, lbs. fat 571.4.

A shield to George L. and Albert B. Craige, Sewickley, Pa.
High H. I. R. herd—lbs. milk 12,558, lbs. fat 420.0.

Pennsylvania Jersey Cattle Club:

A model cow to John E. Morris, Everett, Pa.
High D. H. I. A. herd—lbs. milk 8,833, lbs. fat 479.9.

A model cow to Wm. A. Leitzinger, Clearfield, Pa.
High herd test herd—lbs. milk 7,476, lbs. fat 413.4.

The KEY to Bacteria Control on the Dairy Farm

● Hit-or-miss sterilizing methods are just as much out of place on the farm as in the milk plant. Sealed cans of H T H-15 now provide the key to complete bacteria control "from cow to consumer."

● Each can of this uniform hypochlorite powder contains a measuring spoon. Each spoonful makes 1½ gallons of *sodium hypochlorite* solution (200 p. p. m. av. cl.). H T H-15 solutions kill bacteria quickly, yet without danger to metal equipment.

● H T H-15 is packed in 1- and 3-lb cans; for sale by dealers and dairy supply houses throughout the country.

Write today for free sample can . . .

The MATHIESON ALKALI WORKS, (Inc.)
60 East 42nd Street New York, N. Y.

A model cow to Penn State College, State College, Pa.
High R of M cow—Belle's Jean—lbs. milk 13,222, lbs. fat 740.3.

Pennsylvania Guernsey Breeders' Association:

A cream jug to J. Barlow Cullum, Reading, Pa., R. D. 1.
High D. H. I. A. herd—lbs. milk 10,208, lbs. fat 542.3.

National Ayrshire Breeders' Association:

A trophy to Dunwoody Home Farm, Newton Square, Pa.
High D. H. I. A. herd—lbs. milk 10,036, lbs. fat 418.0.
A trophy to Sycamore Farms, Douglassville, Pa.
High herd in herd test—lbs. milk 11,364, lbs. fat 477.8.
A trophy to National Farm School, Farm School, Pa.
Second high herd in herd test—lbs. milk 10,518, lbs. fat 429.4.

Pennsylvania Brown Swiss Breeders' Association:

A set of three tuned Swiss bells to K. S. Bagshaw, Hollidaysburg, Pa.
High D. H. I. A. herd—lbs. milk 10,242, lbs. fat 445.8.

SPECIAL PRIZE AWARDS

A special prize was awarded by the Pennsylvania Ayrshire Breeders' Association to Guy E. Loy, Cumberland county, for the best sample of milk which scored 97.4 that came from a registered Ayrshire Herd.

A special prize was awarded by the Pennsylvania Guernsey Breeders' Association for the best sample of milk from a registered Guernsey Herd. The award was won by Claude Myers, Plumsteadville, Bucks county. The sample of milk scored 97.3.

A special prize was awarded by the Pennsylvania Guernsey Breeders' Association for the best sample of milk from a grade Guernsey Herd. The award was won by John S. Brant of Dallastown, York county. The sample of milk scored 97.8.

A special prize was awarded by the Dairymen's League for the best sample of milk produced by a League member in the Pennsylvania territory. This prize was won by C. H. Chamberlain, Mansfield, Tioga county. The sample of milk scored 96.4.

A special prize was awarded by the Pittsburgh District Dairy Council to the member of the P. D. D. C. whose milk received the highest score. Mr. Ellis Fox, New Stonton, Westmoreland county, will receive the prize. The sample of milk scored 97.95.

A special prize was awarded by the Pennsylvania Jersey Cattle Club for the best sample of milk produced from a registered Jersey Herd. This award was won by Mr. S. B. Williams, Highspire, Dauphin county. The sample of milk scored 97.8.

Dairy Herd Improvement Association Herd Honor Roll, 1934

Compiled by I. O. SIDELMANN

Each Dairy Herd Improvement Association member whose herd average production was 300 pounds or more of butterfat during 1934 was placed on the honor roll and given a prize ribbon by the Pennsylvania Dairymen's Association. Eight hundred seventy-seven herds qualified for this honor. The awards were divided into three groups according to amount of production; 484 red ribbons were awarded for herd averages between 300 and 350 pounds of butterfat; 267 blue ribbons for averages between 350 and 400 pounds of butterfat; and 126 purple ribbons for averages above 400 pounds of butterfat. Following is a list of these members arranged according to association membership and production average:

ADAMS COUNTY—(Adams Association)
Lee A. McCauslin, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. B. C. Williams	York Springs	11.38	RH	9,884	346.2
John C. Bream	Gettysburg, R 4	15.07	RH	8,953	323.7
E. W. Weaner	Gettysburg	26.99	RH	9,090	312.5
H. E. Brown	Fairfield	19.88	RH:GG	8,699	311.5
G. F. Gephart	East Berlin	8.00	R:GH	9,029	311.5

ALLEGHENY COUNTY—(Allegheny Association)
Robert W. Ryerson, Tester

Fairacres Farm	Sewickley	20.06	RG	8,954	441.9
Farmhill Dairy	Sewickley	19.43	RG	8,046	410.0
W. A. Smith	1543 Beechwood Blvd., Pittsburgh	5.00	RJ	7,178	406.9
Robt. Bamford & Son	Midway	25.85	R:PJ	7,349	402.7
Dundee Farm	Sewickley	6.00	RG	7,860	385.8
J. F. Byers	Sewickley	5.35	RG	8,146	385.2
Allegheny Co. Home	Woodville	87.56	RH	11,317	385.1
Blackburn Farm	Sewickley	7.92	RA	9,368	381.2
Allegheny Co. Workhouse	Blawnox	47.33	GJ	6,581	371.1
R. M. Donaldson	Midway	26.28	RA	7,643	314.3
Newsome Dairy	Coraopolis	20.11	R:GH R:GJ	7,883	303.1

ALLEGHENY COUNTY—(Elizabeth Association)
James Hartzfeld, Tester

E. B. Douglass	Elizabeth	6.25	RG:RH	11,367	465.5
J. D. Guffey	Elizabeth	19.43	RH	9,186	340.5
Henry Hofmeister	Monongahela	17.39	RH:Mix	9,276	336.0

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
C. E. Mowry	Willock	13.83	GH:Mix	7,871	306.6
Frank McKinney	Elizabeth	16.41	R:GH		
			R:GG	7,242	302.7

ARMSTRONG COUNTY—(Armstrong No. 1 Association)

Ralph W. Steele, Tester

Harry Koenig	Tarentum, R 1	15.23	RH:GG	13.293	434.8
H. S. Hogg	Worthington, R 2	15.75	GH:GG	7,974	340.8
R. D. Marshall	Beyer	28.07	R:GH	10,309	340.2
H. C. Lewis	Kaylor	38.68	P:GH		
			P:GG	9,154	324.2
J. M. Reed	Kittanning, R 3	36.77	R:GG:GH	7,426	319.2
Audley Hileman	Ford City, R 1	14.73	R:PH	9,743	317.4

BEDFORD COUNTY—(Bedford Association)

Fred Naugle, Tester

John E. Morris	Everett, RD	6.13	RJ	8,833	479.9
Harry M. Price	Everett, RD	7.93	R:GJ	9,089	446.3
Fred Coxe (Farm 1)	Everett	7.91	RJ	8,273	437.2
David Donaldson	Hopewell	8.42	R:GJ	8,520	431.2
Paul W. Koontz	Bedford	13.12	R:GJ	6,778	403.6
Fred W. Coxe (Farm 2)	Everett	8.92	RJ	7,664	401.1
Mrs. Francis Baker	Everett	15.65	R:GJ	7,509	397.1
C. E. Llewellyn	Midland, Md.	20.59	R:GH	10,650	395.6
Benjamin Hall	Hopewell	10.22	GG	8,161	383.8
*Leon Falk, Jr.	Schellsburg	75.14	RJ:GG	6,711	363.4
W. D. Koontz	Bedford	7.69	RH:GJ	9,218	361.5
Dr. J. G. Bowman	Schellsburg	16.44	R:GJ:H	7,011	360.1
Stanley A. Koontz	Bedford	25.88	R:GJ	6,488	346.7
J. Edw. Miller & Sons	Midland, Md.	14.44	R:GH:J	8,975	333.2
W. E. Barrett	Woodbury	11.48	GJ:G	6,871	329.3
Thomas Donaldson	Yellow Creek	12.96	R:GJ:H	6,985	328.6
Carl Garland	Buffalo Mills	17.80	RH:GJ	8,468	327.2
M. R. Llewellyn	Midland, Md.	23.27	GH	8,804	325.9
Ralph A. Diehl	Bedford	7.25	R:GH:J	7,722	317.1
**C. E. Little	Waterside	12.60	R:GG	6,662	300.5

*Partly 3 times milking
**10 month record

BERKS COUNTY—(Central Berks Association)

Nathan Hoppes, Tester

Henry K. Phillips	Mohrsville, R 1	17.09	R:GG	7,777	365.5
Martin Wolfskill	Bernville, R 2	22.75	R:GH	10,208	357.3
Walter A. Spatz	Bernville, R 2	16.16	R:GH	10,210	355.2
Adam H. Faust	West Leesport	15.16	Mixed	8,468	335.8
Daniel Heffner	Leesport, R 1	16.67	R:GH:Mix	8,994	320.5
Nathan Hoppes	West Leesport	6.00	Mixed	7,313	316.5
John Balthaser	Mohrsville, R 1	32.90	Mixed	8,075	307.7
Harvey Mathias	Bernville, R 2	13.34	R:GH	8,706	307.2

BERKS COUNTY—(Western Berks Association)

Roy Barnhart, Mark S. Belthaser, Testers

J. Barlow Cullum	Reading, R 2	21.84	RG	10,208	542.2
Miss Caroline Archer	Reading, R 1	32.52	RG	9,331	484.7
Chas. Ritzman	Sinking Springs	18.24	R:GH	11,805	410.6

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Sternberg Brothers	Reading, R 2	6.68	RA:G:RG	8,239	388.4
Lonicera Farms	Douglassville	39.65	R:GG	7,577	386.0
Geo. Miller	Mt. Aetna	7.08	R:GH	10,014	355.3
State Hospital	Wernersville	89.16	GH	10,232	354.4
Charles D. Bender	Bernville	8.52	RH	8,604	316.0
Isaac Eberly	Reading, R 1	25.40	R:GG	6,177	313.4
Ammon Schmeck	Sinking Springs	22.71	R:GH	8,604	308.6

BERKS COUNTY—(Northern Berks Association)

Levi Scheidy, Tester

Walter Binkley	Lititz, R. 4	14.53	R:GG	7,195	364.5
Charles W. Scheidy	Bernville	8.68	R:GH	10,461	359.9
Floyd Merkel	Hamburg	17.36	R:GH	9,795	344.8
Paul R. Kohler	Hamburg	29.21	R:GH:GG	9,390	341.3
David Moll	Hamburg	23.17	R:GH	9,991	338.3
John A. Kalbach	Hamburg, St. Route	26.26	RH	10,549	335.8
Walter George	Lenhartsville	15.02	RH	9,711	328.5
Stephen Golubics	Fleetwood	20.25	RG	6,738	325.3
Raymond Delong	Bowers	28.39	RG	6,321	305.1
Log Cabin Farm No. 1	Lititz, R 4	17.38	RJ	5,625	303.4
George Werley	Hamburg, R 3	17.89	RH	8,898	302.9
Herbert W. Seidel	Virginville	8.00	RA	6,963	301.1

BLAIR COUNTY—(Blair Association)

Albert W. Kendall, Cloyd K. Bagshaw, Testers

K. S. Bagshaw	Hollidaysburg, R	8.73	RSw	10,242	445.8
J. M. Delozier	Hollidaysburg, R	11.93	RSw	9,376	389.7
Herbert Bridenbaugh	Martinsburg, R	25.77	Mixed	8,822	371.1
Miles C. Bagshaw	Hollidaysburg, R	12.59	R:GSw	7,893	339.9
Alva Long	Portage, R	30.62	R:GG	6,856	338.2
John Metzker	Martinsburg, R	14.63	R:GH	9,290	338.1
Preston Smith	Martinsburg, R	11.70	R:GH	8,751	324.4
Blair County Home	Hollidaysburg, R	31.57	R:GH	8,747	315.4

BRADFORD COUNTY—(Canton Association)

Clifton Erway, Tester

T. M. Watts	Canton	15.81	R:GH	11,103	407.4
John L. Brackman	Canton	15.53	R:GG	8,325	391.1
Quay Ward	Leolyn	12.12	R:GH:J	8,714	366.6
R. G. Williams & Sons	Canton	16.67	RH	10,166	362.4
Miss Lydia Owen	Canton	14.41	Mixed	8,228	360.0
J. P. Van Fleet & Son	Canton	12.91	R:PJ	6,481	356.3
J. B. Becker	Canton	14.14	R:GH:Mix	9,226	348.8
Clarence Spencer	Canton	14.35	GH	9,363	345.6
H. G. Wright	Canton	24.66	R:GG	6,955	344.5
Samuel Isaacs & Sons	Canton	16.12	R:GH:Mix	8,742	340.1
Elwin Baldwin	Alba	26.14	R:GH	9,763	339.7
R. H. Fleming	Granville Summit	11.20	RH	9,793	336.5
J. C. Fleming	Canton	17.76	RG	6.966	329.7
Marvin Tebo	Canton	11.00	R:GH:Mix	8,070	320.3
William Foulkrod	Canton	18.81	Mixed	7,628	319.8
Earl Wilcox	Canton	17.99	GH	8,791	316.4
W. R. Wright	Canton	12.60	R:GG	6,616	312.0
W .F. Bohlayer	Canton	17.99	RH	8,701	303.6
Charles Bedford	Leolyn	16.44	Mixed	7,506	303.2

BRADFORD COUNTY—(Troy Association)

Harold F. Ayers, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
B. J. Parmenter, Col.	Columbia X Roads	7.12	RH	10,685	365.6
Ben Ballard & Son	Troy	14.99	RH	10,285	362.4
Bert Wilcox	Wellsburg, N. Y.	11.09	Mixed	8,398	356.7
G. E. Beach & Son, Col.	Columbia X Roads	15.93	RH	9,362	340.1
Chas. A. Leonard	Troy	18.59	RJ	6,337	339.8
H. H. Packard	Alba	9.90	RH	9,241	337.1
Lloyd Wolfe & Son	Troy	13.87	RJ	6,240	332.0
H. L. Cornell & Son	Troy	14.27	RA	7,782	319.9
J. M. Rockwell & Son	Troy	17.18	RH:GG PJ	7,161	319.7
Harold Z. Roy	Gillett	14.05	GG:Mix	6,456	318.3
A. W. Wood	Milan	27.55	RG	6,457	308.6
George Ameigh	Gillett	10.19	Mixed	6,681	305.2
Harry Queal	Gillett	8.65	R:GJ	5,698	300.2

BRADFORD COUNTY—(Wyalusing Association)

Fred Campbell, Tester

J. W. Adams**	Sugar Run	6.47	PH	12.200	402.3
M. V. Bennett*	Laceyville	16.95	RJ	6,768	381.0
Karl D. Shiner	Towanda	21.57	R:GJ	7,586	377.6
Taylor McCarty	Sugar Run	15.46	RH	9,708	344.1
Welbec Farms	Wyalusing	35.55	RG	6,688	338.9
R. L. Blocher*	Wyalusing	17.40	P:GH	9,019	326.9
C. B. Culver	Laceyville	30.57	R:GH	9,407	321.8
C. A. Sloat*	Laceyville	5.25	GH:Mix	8,374	310.6

**Partly three times milking
*Record made in 11 months

BRADFORD COUNTY—(Ulster Association)

Paul Dorr, Tester

G. E. Harris	Milan	11.35	RJ	7,322	443.0
Harry J. Layman	Ulster	13.62	P:GH R:GJ	11,386	430.6
Raymond Huff	Milan	11.10	RJ	7,046	429.8
Claude S. Gorham*	LeRaysville	31.21	RJ	7,558	417.0
Damon Young	Milan	13.70	R:GJ	6,953	406.8
H. G. vonWolffradt	Athens	17.82	RJ	7,566	401.0
L. A. Harris	Milan	12.13	RJ	6,642	388.3
M. B. Chilson	Nichols, N. Y.	12.79	R:GH	9,522	354.5
G. E. Ballentine	Milan	10.96	RJ	6,201	351.7
V. A. Madigan	Towanda, RD	13.26	RH	9,236	340.3
Frank H. Colwell	Ulster	25.26	RA	7,649	334.6
C. J. Bresee	Ulster	16.58	RJ	5,963	318.8
G. J. Martin	New Albany	7.59	RH	9,122	318.3
M. A. Cranmer	Ulster	26.43	Mixed	7,302	312.3

*Herd milked three times daily

BRADFORD COUNTY—(Laurel Hill Association)

C. J. Griggs, Tester

Wm. L. Pruyne	Milan	19.85	RH	10,352	377.3
Raymond B. Arnold	Milan	25.17	RH	9,657	359.4
A .E. Madigan	Towanda	19.37	RH	9,708	354.5
I. P. Chaffee	Towanda	19.18	RJ	6,548	352.7

NAME	ADDRESS	AVE. No. COWS	BREED	LBS MILK	LBS. FAT
Charles S. Chaffee	Ulster	20.34	RH	9,348	335.8
F. W. Gorham	Wysox	16.69	RH	9,047	331.4
Frank O. Kuhns	Towanda	12.02	RA	7,833	325.8
Leland R. Palmer	Ulster	16.71	R:GH	8,720	321.1

BUCKS COUNTY—(Bucks No. 1 Association)

Earl Whitman, Tester

*J. P. Canby & Son	Hulmeville	28.99	RH	13,895	495.7
E. F. Stewart	Colmar	13.76	RG	8,119	423.9
**E. B. Morris	Bristol, RD	31.68	RG	7,890	392.0
A. Satterthwaite	Yardley	13.11	RH	11,630	380.8
Henry Pickering	Woodbourne	11.00	R:GG:Mix	8,921	380.6
L. P. Satterthwaite	Newtown	16.76	RH	10,545	367.5
D. H. Diehl	Pipersville	12.76	RJ	7,134	365.7
Philip W. Smith	New Hope	28.87	R:GG	7,400	363.6
R. E. Atkinson	Wrightstown	12.47	RJ	6,664	359.1
Claude Myers	Plumsteadville	25.72	R:GG	6,797	358.7
Joseph S. Briggs	Yardley	19.48	R:GG:H	7,579	347.7
M. C. Satterthwaite	Woodside	13.61	RH	10,166	344.6
Williams & Harley	New Hope	23.75	R:GG	7,190	344.0
Willard W. Wright	Yardley	13.47	R:GH	10,297	341.3
F. E. Snively	Newtown	15.05	R:GH:GG	8.389	338.3
M. Hubert Walton	New Hope	14.08	R:GG	6,390	320.3
J. D. McConnell	Solebury	6.38	R:GJ	6,184	315.2
J. I. Smith	New Hope	19.84	R:GG	5,987	301.4

*Milked three times. **Milked three times, part of the year.

BUCKS COUNTY—(Bucks No. 2 Association)

A. M. Fogel, Alfred Shingledecker, Testers

W. Hunsberger	Plumsteadville	16.75	RH	12,000	428.1
H. Wentz	Quakertown	18.33	R:GH:G	11,325	420.8
C. H. Smith & Son	Wycombe	17.51	R:GG	7,932	411.1
Edwin Linsen	Jamison	28.51	Mixed	9,729	380.7
**J. Hallowell	Ivyland	20.55	R:GH:G	10,784	373.9
A. Worthington	Newton, R 2	16.42	R:GG	7,410	366.2
J. Arthur Shelly	Fountainville	15.37	R:GG	7,565	365.5
Mrs. Bertha Ulrich	Bedminster	12.34	RJ:H	7,201	352.6
**Vaughn Managan	Feasterville	12.23	R:GH	9,944	343.9
Wilmer Twining	Wycombe	11.17	RH	9,640	338.3
H. W. Hallowell	Ivyland	7.00	RH	10,677	338.3
H. K. Riegel	Durham	27.45	Mixed	8,970	336.9
Isaac Gross	Plumsteadville	15.22	RH	10,129	336.4
**A. S. Mumbauer	Spinnerstown	17.03	RA:RH	8,421	332.5
**C. L. Wilkinson	Rushland	17.06	R:GH	9,407	332.1
Ernest Foellner	Ottsville	22.08	R:GH	8,965	331.0
Frank Oehrle	Hatboro	14.42	RH	9,817	330.0
J. Howard Cliffe	Ivyland	16.71	R:GG: R:GH	6.915	328.7
E. C. Mann	Ardmore	27.58	GG	6,694	327.0
**Max Frey	Ottsville	18.94	R:GJ	6,593	316.1
S. C. Diehl	Durham	13.84	Mixed	7,807	306.6

**Three times milking part of the year.

BUTLER COUNTY—(Butler Association)
George J. Hock, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
C. A. Wachsmuth	Butler Star Rt.	8.75	RG	7,491	387.9
R. N. Dickey	Slippery Rock, RD	8.76	RG	7,857	380.4
John Schiever	Harmony, RD	26.30	R:GH R:GJ	8,689	373.7
J. C. Belles & Sons	Harmony, RD	10.53	R:GH	10,578	359.1
Paul Blair	Renfrew, R 2	8.75	RG	6,757	349.5
C. R. Hartzell	Renfrew, R 2	8.50	R:GG	7,470	347.6
Clyde Peffer	Portersville	6.09	RG	7,057	334.5
C. F. Edgar	Renfrew, R 2	8.82	RG	6,309	324.5
Frank Pflugh	Harmony, R 2	18.09	R:GH:Mix	9,094	307.1

CENTRE COUNTY—(Centre No. 1 Association)
Ira Whiteman, Tester

Western Penitentiary	Bellefonte	80.86	R:GH	15,464	522.1
T. C. Kryder	Mill Hall	14.82	RH	10,839	377.6
Peters Bros.	Port Matilda	11.64	RH	9,755	359.9
Lowden Kyle	Mackeyville	8.90	R:GH	10,599	359.2
H. L. Knecht	Mill Hall	7.95	R:GH	10,021	347.9
George E. Weight	Bellefonte	18.14	R:GH	9,501	337.4
J. T. Beckwith	Port Matilda	15.34	GH:Mix	8,427	330.6
Fred Davidson	Warriors Mark	11.23	R:GG:GH	7,566	328.9
Mrs. Mary Kyle	Mackeyville	8.15	R:GH	8,928	308.2
Mill Brook Farm	Mill Hall	20.08	RH	8,854	306.3
Fox Brothers	Mill Hall	11.75	R:GH	8,705	304.6
E. R. Beckwith	Port Matilda	16.07	GG:GH	6,598	301.6

CENTRE COUNTY—(Centre No. 2 Association)
Harry S. Haagen, Tester

M. E. Confer	Howard	8.34	Mixed	8,122	322.1
Frank E. MacIntire	Rebersburg	17.59	R:GH	8,646	317.9
W. F. Rishel	Centre Hall	12.81	RH	9,085	304.1

CENTRAL PENNSYLVANIA GUERNSEY BREEDERS' ASSOCIATION
George A. Luse, Tester

Russell J. Edwards	Ebensburg	20.24	Mixed	8,637	406.0
J. W. Burket & Son	Tyrone	11.53	R:GG	8,564	404.9
D. A. Morrow	Tyrone	11.52	RG	7,762	400.2
Knarr Bros.	DuBois	36.54	R:PG	7,803	384.0
Mrs. C. M. Schwab	Loretto	15.16	RG	6,932	380.3
Aug. E. Farabaugh	Loretto	5.05	RG	7,444	377.6
Griffith Estate	Ebensburg	22.85	RG	7,170	376.6
E. Paul Hoover	Patton	16.30	R:GG:H	8,097	375.1
J. E. Hindman	Tyrone, R 5	24.33	RG	7,283	357.3
Stanley Nipps	Nettleton	17.53	Mixed	7,898	326.1
Wm. C. Morrow	Tyrone	11.83	R:GG	6,822	325.7
Mayes & Vonada	Howard	14.86	RG	6,620	324.0
A. J. Yahner	Patton	10.00	PJ	5,455	320.1
S. B. Wasson	State College	21.60	R:GG	6,579	313.2

CHESTER COUNTY—(Chester Valley Association)
Warren Shingle, Tester

John W. Davis	Downingtown	5.86	RG	7,410	402.2
Frank A. Keen	West Chester	29.96	RH	11,210	378.8

NAME	ADDRESS	COWS AVE. No.	BREED	MILK LBS.	FAT LBS.
O. Jackson Meyer	Glen Moore	28.83	RG	6,733	351.5
Fairland Beale	Linc. University	14.70	RJ	7,202	345.9
John Kent Kane	Glen Loch	41.28	R:GG	6,725	337.2
Jos. A. Becking Estate	Whitford	24.23	R:GH	6,877	315.2
R. L. Fox	Downingtown	23.34	R:GG	6,351	310.4
H. W. Biddle	Lionville	23.65	R:GG	6,333	309.9
Wallace Pearson	Downingtown	24.06	RJ	5,916	306.0
James Latta	Parkesburg	18.61	GG	6,308	300.0

CHESTER COUNTY—(Coventry Association)
L. R. Shingle, Tester

Pennhurst State School	Pennhurst	12.56	GH	13,468	455.6
Wm. M. High	Phoenixville	19.33	RH	10,329	356.5
Harvey Fisher	Phoenixville	19.12	Mixed	8,690	355.0
Montcalm Farms	Phoenixville	52.40	R:GG	7,063	351.5
Laurel Locks Farms	Pottstown	134.39	R:GG	7,238	345.3
F .H. Gyger	Kimberton	29.03	RH:Mix	9,120	337.5
I. H. Kulp	Phoenixville	14.59	Mixed	8,508	336.9
Rose Way Farms	Paoli	33.68	R:GJ	6,694	333.4
Arthur Detwiler	Phoenixville	17.64	Mixed	6,371	314.1
H. L. Stoltzfus	Pottstown	21.52	RH	8,781	304.4
H. R. Swavely	Pottstown	26.02	R:GH:GG	8,288	300.9

CHESTER COUNTY—(West Chester Association)
Walter L. Pearl, Tester

Dunwoody Home Farm	Newtown Square	17.30	RA	10,036	418.0
William I. Reeves	Marshalton	13.40	GG	8,127	402.2
Page Allinson	West Chester	30.59	RH	10,112	350.6
L. Folchman	West Chester	23.76	R:GH	9,720	345.4
LeRoy Harvey Estate	West Chester	23.80	RG	7,073	344.5
William B. Rhoads	West Chester	18.79	R:GH	9,274	335.8
Norman W. Frank	West Chester	24.28	GG:R:GH	8,631	328.9
E. T. Trigg	Malvern	35.15	RG	7,028	344.0
C. S. Rutter	Exton	13.71	GJ:GG	6,978	322.0
Harvey Williams	Coatesville	33.92	GJ	6,280	316.3
M. L. Jones	Westtown	168.41	R:GH	8,712	302.9

CHESTER COUNTY—(Oxford Association)
Philip Harris, Tester

H. S. Gatchell	Peach Bottom	17.85	RJ	6,980	392.3
Reid & Dickey	Oxford	12.02	RH:GJ	9,594	367.3
D. L. Gallagher	Peach Bottom	24.74	R:GG	7,449	361.4
Thomas Sloan	Oxford	24.36	R:GG	9.072	359.4
Caleb Chambers & Son	West Grove	20.93	R:GG	7,393	350.2
**Pierre S. DuPont	Kennett Square	51.91	RG	6,916	346.3
R. P. Copeland	Cochranville	18.94	Mixed	8,745	346.0
Dr. Edw. A. Webb	Avondale	17.96	GG	6,492	338.5
George Cullen	Elkview	28.70	R:GG	6,939	336.7
Mrs. Louise Wade	Chatham	40.09	Mixed	7,448	332.8
D. L. Gallagher	Peach Bottom	22.93	R:GG	7,149	332.7
Hayes Lindsey	Oxford	9.99	R:GG	7,877	327.3
L. R. Hourdequin	Avondale	32.60	R:GG	6,923	326.2
Lewis Brown	Nottingham	18.47	Mixed	7,884	320.6
H. L. Stubbs	Oxford	27.57	RH:Mixed	7,753	317.8
Edgar Haines	West Grove	27.36	GG	6,491	312.8

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Connor & Killinger	Avondale	47.92	R:GJ	6,097	309.8
Allen Dubble	Peach Bottom	14.89	RJ	6,051	308.3
**Partly 3 times milking					

CLARION COUNTY—(Clarion Association)
Wendell Wetzel, Tester

J. W. M. Gruber & Son	Shippenville	28.63	R:GG	8,680	435.0
R. L. Fleming	New Bethlehem	13.77	RG	8,264	433.0
J. P. C. King	Summerville	9.33	RH	11,870	426.1
Ray H. Shook	Sligo	17.20	R:GG	8,372	420.5
Parker View Farm	Parkers Landing	16.20	RG	8,394	411.3
F. L. Stahlman	New Bethlehem	6.05	R:GG	7,044	388.6
H. G. Mahle	Miola	8.91	R:GG	7,325	383.9
Foxburg Farm Herd	Foxburg	49.07	RG	7,172	357.9
R. M. Burnham	Strattonville	11.86	RG	6,841	353.4
Wm. & C. A. McCauley	New Bethlehem	21.20	RH	9,679	346.9
Dellas A. Stahlman	New Bethlehem	12.31	R:GG	6,577	343.6
E. H. DeVilder	Miola	8.32	RG	6,450	340.1
J. W. Hartman & Son	Sligo	15.64	RG	6,705	330.2
O. S. Burnham	Corsica	7.70	RG	6,289	314.7

CLEARFIELD COUNTY—(Clearfield Association)
Alvin Smith, Tester

S. J. Zemka	Clearfield, RD	12.75	Mixed	8,533	414.2
White Oaks Farm (W. A. E. Leitzinger)	Clearfield	12.90	RJ	7,497	403.6
Arrowhead Farm (R. S. Hurley)	Morrisdale, RD	12.05	R:GJ	7,108	391.6
S. R. Thompson Estate	Philipsburg, RD	15.45	R:GH:GJ	9,404	388.4
Frank Wise	Curwensville, RD	12.26	RG:Mix	7,713	384.9
Bellnap Farm (John McKeage)	Mahaffey	11.26	RG	7,340	360.5
Metzger & Leiby (E.R. Leiby, G. E. Metzger)	Curwensville, RD	31.14	R:GH:Mix	8,703	353.3
C. O. Mattern	Osceola Mills, RD	19.58	RG	6,887	337.8
L. S. Hay	Sabula, RD Bx. 45	10.50	R:GG	6,897	333.5
S. V. McKee	Westover, RD	9.00	R:GG	6,338	325.5
A. G. Haag	DuBois, RD	17.36	R:GG	6,552	323.6
Stone House Farm (Samuel Mitchell)	Clearfield, RD	17.99	RH	8,853	308.3
Clearfield County Home	Clearfield	16.56	GH	8,152	300.5
Hotel Logan Farm (George Sloppy)	DpBois, RD	18.02	P:GG:H	6,734	300.2

COLUMBIA COUNTY—(Columbia Association)
Earl E. Erdman, Tester

Col. Dorrence Reynolds	Dallas	15.82	RG	9,533	456.9
Danville State Hospital	Danville	88.75	R:GH	11,637	392.8
Central Poor District	Retreat	44.52	RH	11,471	390.9
H. R. Andrews	Stillwater	10.43	RG	6,981	333.0
F. F. Hayman	Stillwater	12.28	RG	6,553	332.2
Samuel Yost	Stillwater	5.56	R:PG	6,164	308.5
R. J. Breisch	Catawissa	19.99	P:GG:H	6,689	303.5
Carter Bache	Benton	13.96	RG:RH	7,444	300.0

CRAWFORD COUNTY—(Western Crawford Association)
Albert J. Crowl, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Riverside Stock Farm	Cambridge Springs	23.75	R:GJ	7,894	430.9
H. C. Drissel	Saegertown	7.81	R:GJ	6,979	372.2
H. W. Carrier	Atlantic	7.67	R:GG	7,802	357.4
Port Eckels	Venango	5.77	RG	6,798	355.4
D. F. Bird & Son	Guys Mills	5.82	R:GG:GJ	6,766	311.1

CRAWFORD COUNTY—(Crawford-Venango Association)
Wendell Bauer, Tester

Irwin Smith	Guys Mills, R 2	7.64	RH	13,207	474.2
Wesley Reitze	Meadville, R 5	10.42	RH	12,989	454.1
Harry I. Sharp	Diamond, RD	5.44	RJ	7,590	421.4
Harry Whitman	Diamond, RD	6.99	RJ	7,511	398.5
R. W. & L. L. Luce	Guys Mills	15.31	R:GJ	7,640	393.4
Joseph Poux	Guys Mills, R 2	8.25	R:GH	10,130	382.9
James DeRemer	Tryonville	8.12	Mixed	7,835	381.9
James O. Orr	Townville	5.28	GH	10,138	369.2
Nova Noel	Guys Mills, R 3	9.60	R:GJ	6,919	352.1
E. O. Ribb	Diamond	12.89	R:GG:Mix	7,832	326.3
Mrs. Zita Brenot	Meadville, Star Rt.	9.36	R:GH:RG	7,434	307.0
D. C. Pettigrew & Son	Guys Mills, R 4	9.93	R:GJ	6,144	302.2

CRAWFORD COUNTY—(Titusville Association)
Carl L. Yingling, Tester

D. N. Burrows	Pleasantville, RD 2	17.46	RH	12,458	411.6
James M. Kelly	Titusville	18.30	RG	7,679	377.6
Harrison Bros.	Spartansburg, RD 2	18.20	R:GH	9,769	363.5
O. T. Ongley	Grand Valley, RD 2	13.48	R:GH:Mix	8,075	331.4
A. K. Hummer	Titusville, RD 2	26.32	RH	9,292	323.3
Geo. Hummer	Titusville, RD 2	15.29	RJ	5,900	318.6
T. S. Ingram	Corry, RD	7.44	RG	6,278	317.2
Harry Wheatall	Titusville, RD 2	13.50	R:GH:Mix	8,627	316.5
E. W. Hummer & Son	Titusville, RD 2	30.09	R:GJ	5,631	316.0
A. C. Watson	Titusville, RD 2	12.45	Mixed	6,901	314.8
M. D. Ongley	Grand Valley, RD 2	11.37	Mixed	7,406	310.1
Will Hasbrouck	Titusville, RD 2	17.53	RH	8,684	307.8
J. P. Harrison	Centerville, RD 1	21.85	GH:GG	8,180	305.6

CUMBERLAND COUNTY—(Cumberland No. 1 Association)
A. A. Raudabaugh, Tester

A. G. Wingert	Mechanicsburg, R 5	11.07	RH	13,007	462.8
**Ivo V. Otto	Carlisle, R 6	23.64	RH	13,119	456.2
Vance C. McCormick	Harrisburg	4.08	RG	9,249	425.2
Ludt Brothers	Carlisle, R 5	11.78	Mixed	10,254	411.6
S. B. Weber	Mechanicsburg, R 2	24.01	R:GH	11,546	406.0
C. M. Cornman	Mechanicsburg, R 5	15.51	R:GH	11,562	401.9
**George M. Harman	Barnitz	11.98	R:GG	8,666	396.4
**A. E. Rider	Mechanicsburg, R 2	15.43	RH	11,434	393.7
Harry E. Hamsher	Mechanicsburg, R 2	9.41	RH	11,225	393.6
F. D. Myers	Mechanicsburg, R 1	20.92	R:GH	11,269	392.6
Albert F. Kost	Carlisle, R 7	20.90	RH	10,966	387.7
Methodist Home	Mechanicsburg	19.21	R:GH:GG	10,313	387.2
G. Weir Strock	Mechanicsburg, R 2	30.52	R:GH	10,791	383.8
**Dr. E. S. Deubler	Narberth	16.49	RA	9,132	382.2

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
H. K. McCullough	Newville, R 1	26.33	R:GG	7,450	378.6
J. H. Lear	Carlisle, R 5	19.02	RH	10,006	373.5
Mark R. Basehore	Mechanicsburg, R 5	13.79	R:GH	10,920	366.4
Miss Anne McCormick	Harrisburg	6.55	RG	7,266	364.8
W. A. Eckert	Mechanicsburg, R 5	17.61	R:GG	7,251	353.9
J. N. Kruger, Herd No. 1	Carlisle	14.82	RA	8,438	348.1
George Nauss, Jr.	Mechanicsburg, R 5	18.49	R:GH	9,926	345.7
C. G. Niesley	Mechanicsburg, R 1	18.19	RH	9,865	344.6
S. W. Zeigler	Mechanicsburg, R 2	15.92	RH	9,556	329.0
J. N. Kruger, Herd No. 2	Carlisle	32.99	Mixed	7,543	306.3

**Partly 3 times milking

CUMBERLAND COUNTY—(Cumberland No. 2 Association)

J. Paul Shughart, Tester

E.H.Hess & I.J.Zercher**	Mechanicsburg, R 2	14.55	R:GH	11,595	384.5
Charles C. Hoffer	Carlisle	14.37	R:GH	11,104	379.2
Mervin C. Shughart	Mechanicsburg, R 5	9.09	R:GH	10,464	373.1
J. Brady Smith	Shippensburg, R 1	18.26	R:GH	10,968	364.3
Wallace W. Peffer	Newville, R 1	10.80	RH	10,308	355.2
S. Ellsworth Landis	Newville	15.95	GG	7,509	351.5
Hugh L. McMeen	Carlisle, R 6	20.98	R:GH	10,138	344.3
W. A. Woods & Son	Carlisle, R 8	10.43	RH	10,530	341.0
John A. Smith & Sons	Dickinson	9.17	R:GG	6,781	338.4
Albert Adams	Carlisle, R 8	19.57	R:GH	9,366	334.1
Walter K. Sharpe Estate	Chambersburg	10.29	R:GH	9,695	324.2
Foster B. Shughart	Carlisle, R 7	6.76	Mixed	8,280	323.5
R. Bruce Stuart	Carlisle, R 3	15.44	RH	9,674	320.0
Paul O. Sunday	Carlisle, R 1	12.57	R:GH	9,073	317.8
R. M. Goodhart	Mechanicsburg, R 1	11.59	R:GG	7,019	314.8
Benj. J. Zimmerman	Carlisle, R 7	8.41	RH	9,147	310.0
Clarence R. Sunday	Carlisle, R 7	13.12	R:GH	9,688	306.2
Harry M. Whistler	Carlisle, R 5	8.00	R:GH	9,416	302.7

**Partly 3 times milking

DAUPHIN COUNTY—(Dauphin Association)

Warren Bucher, Tester

**Benj. A. Weiss	Lykens	6.63	R:GH	12,208	435.0
S. B. Williams, Jr.	Highspire	14.12	R:GJ	7,399	372.5
C. K. Fertig	Dauphin	9.37	R:GH	10,892	366.4
A. H. Erdman	Elizabethville	18.66	R:PH	10,457	358.9
***Harrisb'g State Hosp.	Harrisburg	49.87	R:GH	11,601	353.9
Dauphin Co. Home	Harrisburg	26.31	R:GH	10,255	343.9
Howard Speece	Dauphin	19.08	R:GH	10,193	341.3
Odd Fellows Home	Middletown	8.76	RH	10,337	332.8
**Hershey Indust'l School	Hershey	89.23	R:GH	9,520	317.9
*Rasmussen & Cater	Hummelstown	5.93	RH	8,891	305.1
Max A. Lauffer	Middletown	12.76	RH	8,565	303.4

*Nine months' record.
**Partly 3 times milking
***3 and 4 times milking

ERIE COUNTY—(Wattsburg Association)

R. J. Williams, Tester

Glenn Steves	Waterford	9.05	RH	10,686	364.0
Paul Dennee	Union City	7.48	R:GH	9,215	345.0

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Hazen Follett	Corry	14.05	RH	10,469	341.8
Harold Trask	McKean	16.80	R:GH	9,085	329.1
Elmwood Home Farm	West Springfield	19.84	RH	9,078	305.0
Ames E. Brown	East Springfield	18.28	R:GH	8,541	304.4
F. H. Hopson & Son	Wattsburg	19.63	GH	8,702	303.0
Frank Blackman	Wattsburg	19.63	R:GH	9,265	302.5

FAYETTE COUNTY—(Fayette Association)

James Hartzfeld, Tester

J. Espey Lynn	Vanderbile	14.89	R:GG:GH	9,367	409.8
T. W. Gans & Son	Gans	13.64	R:GH:GG	9,746	398.3
G. G. Gault	Dawson	12.58	GG	7,017	362.5
E. E. Arnold	Vanderbilt	13.85	P:GH	10,633	359.1
Pleasant Level Dairy	Connellsville	27.71	R:GH: R:GG	8,238	328.6
W. J. Stewart	Brownsville	27.90	RH	9,141	303.4

FRANKLIN COUNTY—(Western Franklin Association)

Lee A. McCauslin, Tester

J. W. Hoffeditz	Mercersburg, RD		P:GG	9,227	391.2
J. W. Aughinbaugh	Mercersburg, RD		R:GG	7,067	350.0
Wilson Sisters	Metal		R:GG: R:GJ	5,626	313.5
C. H. Neagley	Mercersburg, RD		GH:Mixed	7,588	301.4

FRANKLIN COUNTY—(Southern Franklin Association)

R. G. Miller, Tester

Geo. Fries	Chambersburg, R 3	12.64	RH	10,866	409.9
J. M. Main & Sons	Shippensburg, R 2	15.67		7,165	408.3
M. B. Mentzer	Chambersburg, R 5	11.42	RH	10,122	392.1
Irvin P. Benedict	Waynesboro, R 2	10.53	RG	7,276	379.1
James Dayhoff	Waynesboro	19.33	RA	8,669	360.0
Ira Shank	Waynesboro, R 1	16.23	R:GG:Mix	8,077	348.7
S. O. S. School	Scotland	15.99	R:GH	9,112	339.3
W. F. Barkdoll	Mont Alto	32.42	R:GH:Mix	8,667	337.7
Roy Burkholder	Waynesboro, R 1	10.23	R:GG	7,125	330.8
Luther Miller	St. Thomas, R 1	9.50	RH	9,307	324.9
	PART YEAR MEMBER				
Jno. Myers & Son (10mo)	Waynesboro	20.06	Mixed	7,264	304.4

HUNTINGDON COUNTY—(Huntingdon Association)

J. H. Reynolds, Tester

**Pa. Industrial School	Huntingdon	50.34	R:GH	14,031	487.7
Wm. H. Woolverton	Alexandria	14.22	R:PG	8,384	395.8
Benj. R. Byler	Mill Creek	12.14	R:GH	9,509	364.1
H. Edwin Grazier	Warriors Mark	12.24	R:Sw	9,217	356.5
N. E. Black	Alexandria	14.71	R:GG	7,313	348.0
E. G. LaPorte	Alexandria	16.65	R:GG:Mix	6,983	321.8
Walter C. Henderson	Petersburg	14.49	R:GSw	7,905	319.7
Ray F. Brown	Mill Creek	8.02	R:GG:GH	7,610	318.3

**3 times milking (last year)

INDIANA COUNTY—(Indiana No. 1 Association)

Carl Johnston, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Clyde Houck	Clymer, R 1	8.79	R:PJ	8,157	447.6
W. S. Wetzel	Marion Center	14.95	R:GJ	7,621	428.5
Carl Walker	Marion Center	10.36	R:GJ	7,857	421.8
H. W. Mumau	Clymer, R 1	7.39	R:GJ	7,533	418.8
*Indiana County Home	Indiana, R 5	19.97	R:GH	12.084	409.2
J. S. Rankin	Indiana, R 1	10.42	P:GJ	7,106	399.1
Walter Simpson	Marion Center	12.91	R:GJ	7,182	395.8
H. M. Travis	Smicksburg	12.78	R:GH	7,992	389.4
C. C. Pollock	Marion Center	7.98	R:GJ	7,089	386.8
Quay McMillen	Clymer, R 1	10.23	R:GJ	7,830	386.6
C. F. Allen	Dayton, R 1	7.55	R:GG	7,875	385.4
Wilbert H. Wood	Shelocta	9.87	R:GH	10,724	382.4
G. C. Swan	Home, R 1	13.21	R:GJ	6,970	381.4
W. F. Barkley	Livermore	15.44	GG	7,527	364.6
*Torrance State Hospital	Torrance	46.71	RH	11,826	363.5
E. G. Rice	Dixonville	10.48	R:PJ	7,004	345.0
J. S. Cornell	Blairsville	14.03	RH:GG	9,239	334.3
Wm. C. McMillen	Home, R 1	15.01	P:GJ:Mix	6,492	319.6
H. H. Barnhart, Jr.	Livermore	16.49	P:GH:GJ: Mixed	7,140	307.9
H. H. Wetzel	Marion Center	9,84	R:GJ	5,981	307.3
C. D. Bence	Marion Center	16.15	R:GJ	5,596	300.2

*Milked 3 times

INDIANA COUNTY—(Indiana No. 2 Association)

Wendell Wetzel, Frank Gint, Testers

J. C. Mohney	Punxsutawney, R 4	18.04	R:GJ	7,629	439.6
Henry Townsend	South Bend	9.47	RG	8,157	418.6
Clyde McConnaughey	Smicksburg	5.43	RJ	8,304	409.7
R. L. Boucher	Clymer, R 1	15.70	R:GG	8,027	401.0
J. F. Pounds	Indiana, R 6	17.61	R:GH:Mix	9,756	395.8
J. Mack Hood	New Florence	14.16	RJ:GH	7,640	389.7
M. C. Stewart	Homer City	8.91	GJ:Mixed	7,707	380.1
H. B. Wetzel	Marion Center, R 1	7.93	R:GJ	6,435	374.2
J. C. Gibson	Penn Run	7.41	R:GH:Mix	8,626	320.1
R. M. Hood	Huff	13.41	R:GG: R:GS	6,597	310.5

JEFFERSON COUNTY—(Jefferson Association)

M. W. Shingledecker, Tester

Angus Wilson	Punxsutawney, R 4	10.71	R:GJ	7,975	469.9
G. O. Schuckers	Brookville, R 1	11.73	R:PH:RJ	10,970	416.2
Harry Lindy	Reynoldsville, R 4	10.37	R:GG	6,748	382.0
L. B. Shannon	Brookville	18.29	R:GG	7,265	369.5
E. E. Swineford	Reynoldsville, R 1	25.81	R:GJ	6,567	352.0
J. W. Syphrit	Reynoldsville, R 4	5.84	R:GG	5,898	350.0
Jefferson Co. Home	Brookville, R 6	22.46	GH	9,267	336.3
Howard Smith	Reynoldsville, R 2	17.58	Mixed	7,629	328.3
The William Irvin Co.	Big Run, R 1	24.28	RG	6,497	327.8
Wm. J. Youngdahl	Brockport	9.27	GG	6,497	324.0
Dr. F. D. Pringle	Punxsutawney	18.80	R:GG	6,141	321.1

JUNIATA COUNTY—(Juniata Association)

L. Oscar Gelnett, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
D. Q. Adams	Mifflintown	15.16	RH	12,569	440.1
H. I. Gray & Son	Honey Grove	18.97	RH	11,508	398.4
Karl A. Fettig	Port Royal	13.74	RH	11,114	397.2
T. R. Auker	Mifflintown	12.36	RH	10,669	369.1
H. C. Zook & Son	Mifflintown	17.78	RH	9,661	355.1
C .D. Stouffer	Port Royal	16.79	R:GH	10,001	348.1
Homer Benner	Oakland Mills	8.28	Mixed	10,118	345.6
Carl L. Smith	McAlisterville	17.24	RH	9.953	343.7
C. A. Musser	Oakland Mills	12.57	R:GH	8,636	316.7
H .E. Groninger	Port Royal	15.23	RH	8,489	315.0

LACKAWANNA COUNTY—(Lackawanna Association)

Donald Hindman, Tester

Jermyn, E. B.	Clarks Summit, RD	11.50	GG:GJ	8,946	424.3
Seamans, Mrs. Vera T.	Factoryville, RD	15.60	P:GH: Mix	9,393	382.2
McLain, T. W. & Son	Moscow, RD	38.65	GH	9,958	340.8
Hertneck, Leonard	Moscow, RD	21.99	R:GH:Mix	8,647	314.7
Blaekwell Bros.	Ransom, RD	22.54	R:GH: R:GJ	7,514	304.1
Miller Bros.	Clarks Summit, RD	27.67	RH	8,813	301.3

LANCASTER COUNTY—(Garden Spot Association)

Luke W. Martin, Tester

Warren L. Eby	Gordonville, R 1	12.20	RH	11,530	375.4
Ira M. Eby	Gordonville, R 1	17.63	RH	11,099	372.1
Jacob S. Horst	Bareville, R 1	11.05	R:GA:GH	9,015	366.9
I. W. Brendle	East Earl, R 1	7:55	RH	10,412	355.0
H. K. Martin	Goodville	16.16	RH	8,858	300.2

LAWRENCE COUNTY—(Lawrence Association)

J. Francis Boak, W. Dale McCurley, Testers

Lauren Thompson	New Wilmington		RJ	7,998	431.4
R. W. Hartenbach	Monaca, Box. 65		R:GG	6,880	364.0
J. W. Martin & Sons	Bessemer, Box 228		RJ	6,253	340.8
J. W. Bronson	New Galilee, R. 1		RJ	6,313	328.4
Arnold Bros.	Beaver Falls, R. 4		RG	6,530	314.1

LEBANON COUNTY—(Lebanon Association)

Jacob N. Smith, Warren H. Houser, Testers

Fairview Farms	Cornwall	51.75	RG	9,041	444.2
Jacob N. Smith	Palmyra	15.73	RG	9,192	439.2
Isaac Mock	Myerstown, R 2	11.48	RG	7,767	430.4
Henry M. Ebersole	Lebanon, R 4	11.35	R:GH	12,130	423.0
Frank Heilman & Son	Lebanon, R 3	30.75	R:GH	10,722	362.9
David P. Snyder	Sheridan	21.93	R:GH	10,951	357.8
Joseph Kreider	Lebanon, R 4	17.86	R:GH	10,794	356.7
A. G. Brubaker	Myerstown	11.25	RH	10,191	350.4
Frank W. Fernsler	Lebanon, R 1	41.72	R:GH	10,351	338.5
Howard S. Bomberger	Lebanon, R 6	20.62	RG	7,293	335.9
M. H. Bennetch	Sheridan	18.07	RH	10,176	330.9
William D. Basehore	Lebanon, R 3	9.50	R:GG	6,719	325.2

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
J. H. Schott	Lebanon, R 6	29.90	RH	9,488	316.1
J. H. Troup, Jr.	Sheridan	14.70	RH	9,366	314.7
Robert B. Royer	Lebanon, R 1	16.81	RA	8,238	310.7
Wayne Keller	Myerstown, R 2	19.07	R:GH	9,633	306.1
Samuel K. Wengert	Lebanon, R 4	31.56	R:GH:Mix	9,345	306.0
Harry S. Forney	Palmyra	26.09	GG:M	7,118	300.0

LEHIGH-NORTHAMPTON COUNTIES—(Lehigh-Northampton Association)
Francis Sattizahn, Tester

L. A. Zimmerman	Lehighton, R 1	20.31	RH	14,679	492.6
Allentown State Hospita	Allentown	50.39	R:GH	12,843	409.5
River Valley Farm	Easton	31.84	R:GH: R:GJ	10,382	378.7
Willow Brook Farms	Catasauqua	19.15	RG	7,173	368.1
Floyd Shook	Pen Argyl	19.39	RH	10,134	365.6
Wm. W. Shoemaker	Walnutport, R 1	6.74	R:GH	9,292	352.3
Weyhill Farms	Bethlehem, R 4	65.19	R:GH:RG	8,759	342.9
B. L. Hindenach	Easton, R 4	18.05	RH:R:GG	8,810	336.3
Northampton Co. Home	Nazareth	25.84	R:GH	9,911	330.5
Harry F. Roth	Nazareth, R 2	7.50	RH	10,250	329.6
Milton W. Shoemaker	Walnutport, R 1	10.83	R:GH:Mix	8,771	328.7
Claude E. Kemmerer	Bethlehem, R 1	11.79	R:GH	8,607	326.7
A. Johnson	Bethlehem	15.59	GH	8,619	322.7
Granville Stettler	Easton, R 3	12.07	Mixed	8,626	318.4
Wm. H. Rupp	Breinigsville	10.67	RH	9,021	315.4
John F. Shoemaker	Mt. Bethel, R 1	11.26	R:GH:Mix	8,780	313.7

LYCOMING COUNTY—(Lycoming Association)
Alva R. Love, Tester

*State Ind. Home	Muncy	25.70	R:GH	12,806	429.2
C. H. Mantle	Nisbet, R 1	6.38	GH	11,514	398.3
Harry C. Fenstimaker	Duboistown, RD	13.51	GG:Mix	7,791	327.2
W. D. Snyder	Hepburnville	17.11	RH	9,833	321.6
H. R. Paulhamus	Hepburnville	12.33	RH	9,015	320.8
Charles Stewart	Nisbet	19.52	R:GH	9,077	310.0
J. D. Lunger	Lairdsville	7.06	R:GG	6,137	309.3
S. L. Nicholson & Son	Muncy, RD	14.16	RH	9,215	308.6
H. A. Snyder	Montoursville, R 1	21.21	RH	8,602	306.9
W. S. Carson	Nisbet	14.60	GG	6,633	305.2

*3 times milking

MERCER COUNTY—(Grove City Association)
Warren H. Houser, Marshall Runkel, Testers

**T. P. Campbell	Grove City	17.50	R:GG: Mix	10,726	512.9
*Mercer Sanitarium	Mercer	13.84	RJ:GG	8,352	475.0
**W. I. Blake	Mercer	14.58	RJ	8,570	450.2
R. C. Henderson	Sandy Lake	8.00	GJ	7,854	436.8
**Lee R. Critchlow	Harrisville	15.19	R:GJ	8,040	432.3
G. G. McDowell	Grove City	15.58	R:GJ	7,662	413.1
L. M. Cummings	Mercer	11.08	GJ:GG	7,936	409.3
C. M. Worley	Mercer	8.72	RG	7,584	391.7
A. D. Ramsey	Volant	8.55	R:GJ	7,126	374.3
L. G. Pearson	Mercer	12.28	R:GG:PH	8,686	371.1
C. L. Amon	Sandy Lake	11.47	GJ	6,837	367.6

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
N. L. Dick	Sandy Lake	10.34	GJ	6,763	364.2
Mercer Cottage Hospital	Mercer	15.05	R:GJ: R:GH	7,721	360.4
J. L. Black	Grove City	9.24	R:GJ	7,121	360.0
F. L. Burdette	Sandy Lake	10.08	GJ	6,068	347.2
Hugh Fergus	Slippery Rock	28.79	Mixed	7,649	338.9
A. M. King	Mercer	17.82	R:PJ	6,311	338.5
Mrs. Mabel Williams	Stoneboro	14.42	R:GJ	5,913	329.8
A. W. Weaver	Mercer	11.88	R:GG	7,056	327.7
Wolf Creek Farm	Slippery Rock	8.19	RG	6,232	315.8
C. R. Little	Jackson Center	12.85	P:GJ	6,029	311.5
I.O.O.F. Home	Grove City	20.81	R:GH	9,270	310.8
G. D. Barnes	Grove City	9.87	RH	8,959	305.9

*One cow in this herd not producing milk during year is included in report.
**Partly 3 times milking.

MERCER COUNTY—(Mercer No. 3 Association)
H. Forest Hawk, Tester

Wilhelm Bros.	Sharon	18.44	R:GG: R:GJ	9,078	430.3
Mercer County Home	Mercer	38.01	R:GH	12,950	425.1
Julius C. Christy	Sharon	17.94	Mixed	8,520	368.7
W. H. Crawford	Mercer	20.37	Mixed	8,452	352.9
Mell Reno & Sons	Sharpsville	38.27	Mixed	7,491	344.0
S. M. McBurney	Sharpsville	22.59	GH:Mixed	8,941	328.8
F. L. Minner	Pulaski	16.01	R:GJ	6,725	324.2
E. S. Reichard & Sons	Transfer	21.24	PJ	6,364	324.2
McDowell Farm	Sharon	24.27	RA:Mix	7,619	321.8
L. R. Cox	Pulaski	22.55	R:GG: Mixed	6,645	309.5

McKEAN-ELK COUNTIES—(McKean-Elk Association)
R. P. Nichols, Tester

C. R. Tubbs	Turtle Point	10.77	P:GH	11,238	372.1
E. S. O'Mara	Bradford	43.28	R:GH: R:GG	9,347	354.3
H. J. Gregory	St. Marys	23.25	RH	8,848	342.9
Wahlberg Brothers	Kane	25.91	Mixed	8,257	332.3
John Lewis	Ceres, N. Y.	11.95	GJ	6,702	328.9
J. M. Kirkman	Turtle Point	19.05	GH	9,178	311.7
Amandus Larson & Son	Ridgway	16.28	R:GH:Mix	7,623	310.4
O. L. Tubbs	Turtle Point	25.48	GH	9,951	304.1

MIFFLIN COUNTY—(Mifflin Association)
Lester M. Shughart, Tester

C. Wm. Bonson	Belleville	9.55	R:GH	12,291	426.2
Thos. J. Byler	Allensville	14.80	GH:GJ	10,301	421.7
Malta Home Assn. of Pa.	Granville	16.85	RH	12,983	417.7
Amos C. Yoder	Allensville	15.11	R:GG:GJ	8,231	417.4
H. A. & E. E. Price	Lewistown, R 3	10.67	R:GH	10,791	400.1
H. H. Bradford	Lewistown	9.42	RH	11,337	382.9
David J. Yoder	Reedsville	17.26	R:GJ:GH	9,014	379.7
Samuel C. Mitchell	Lewistown, R 3	14.41	R:GH	6,065	333.3
Jacob D. Byler	Belleville	15.41	R:GG:Mix	7,415	331.0
J. Reed Goss	Reedsville	16.58	GH	8,528	303.1

MONTGOMERY COUNTY—(Montgomery No. 1 Association)

Frank G. Horrocks, Tester

NAME	ADDRESS	COWS AVE. No.	BREED	MILK LBS.	FAT LBS.
Alvin L. Funk	Royersford	20.85	R:GG	8,124	400.1
Ursinus College	Collegeville	14.41	RH	11,019	398.9
**Allen Kriebel	Hereford	24.00	R:GH	10,999	392.3
J. L. Wood & Sons	Red Hill	19.25	R:GH	10,647	386.3
Wayne Schultz	East Greenville	15.34	RH	11,087	381.8
Spring Del Farm	Fort Washington	9.39	RG	7,471	381.3
*Gwynllan Farm	Gwynedd Valley	58.21	RG	7,623	377.9
Homer Schultz	Hereford	16.36	RH	10,119	373.5
Chas. Fetterman	Barto	17.91	R:GH:G	9,628	369.7
Silver Spring Farm	Norristown, R 4	9.44	R:GG	7,712	365.8
S. C. Burton	Maple Glen	25.16	RG	7,208	360.2
Shipley School	Gladwyn	12.32	R:GG	7,225	358.3
Owen Gerhard	Palm	17.57	R:GH	9,662	351.2
H. D. Allebach	Trappe	17.28	RH	9,868	350.7
Harvey Murphy	Norristown, R 5	18.08	GH	9,009	345.1
C. E. Wismer	Trappe	84.34	R:GH:Mix	8,509	335.0
Walter R. Hibberd	Bryn Mawr	15.64	RG	6.853	326.3
Mrs. Howard Bieler	East Greenville	17.55	R:GH	8,926	312.1
A. L. Bailey	Gladwyn	14.59	RJ	6.053	311.7
Allen Haldeman	Bechtelsville	8.90	R:GA	7,631	311.5
Francis McClure	North Wales	20.57	Mixed	7,495	308.7
Howard L. Baker	Center Square	20.36	RH	8,449	303.8

*3 times milking.
**Partly 3 times milking.

MONTGOMERY COUNTY—(Montgomery No. 2 Association)

David H. Magill, Tester

*State Hospital	Norristown	58.87	Mixed	11,982	408.8
**Penshurst Farm	Narberth	70.83	RA	10,066	400.0
Raymond Kulp	Schwenksville, RD	16.32	Mixed	9,132	375.9
F. E. Dixon	Elkins Park	14.00	RJ	6,927	353.8
**Carson College	Flourtown	12.84	Mixed	8,442	344.6
David S. B. Chew Estate	Radnor	15.94	RG	6,603	335.6
Normandy Farm	Norristown, RD 3	97.02	RA	8,439	334.0
*Camp Discharge Farm	Conshohocken	42.33	RG	6,951	324.1
Wm. Pratt, Jr.	Willow Grove	20.49	Mixed	8,454	319.0
George Heuer	Fairview Village	33.23	Mixed	7,401	317.1
Paul Brosz	North Wales	27.31	RJ	5,983	316.8
Charles Shuman	Norristown, R 4	16.61	Mixed	8,156	303.0

*3 times milking.
**Partly 3 times milking.

NORTHUMBERLAND-SNYDER COUNTIES
(Northumberland-Snyder Association)

John Ginck, Tester

*Murray H. Dinius	Middleburg	11.30	R:GH	12,321	421.3
**State Colony	Selinsgrove	27.24	R:GH	11,232	406.3
M. L. Rovenolt	Turbotville	9.30	R:GH	7,164	357.8
A. S. Rovenolt	Turbotville	8.32	R:GH	6,754	347.8
Raymond J. Kiefer	Watsontown	9.68	R:GG	6,862	344.1
Sunbury Milk Prod. Co.	Sunbury	22.76	R:GH:G	8,086	338.0
Clarence Bailey	Beavertown	8.34	GH	8.741	330.8
W. C. Gauger	Watsontown	12.20	R:GH	9,269	319.3
H. J. Masters	Sunbury	49.07	R:GH	9,012	314.2

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. Woodward Stephens	Mooresburg	30.73	RH	8,440	310.7
William L. Vincent	Danville	12.44	GG	6,683	309.6
Harry Klingler	Beaver Springs	9.26	RH	8,771	305.0
Fisher Brothers	Kreamer	18.12	R:GH	8,686	303.7
C. E. Witmer	Dalmatia	11.14	RG	5,961	300.0

*3 times milking.
**Partly 3 times milking.

PERRY COUNTY—(Perry Association)

Bruce E. Beaver, Tester

Ward R. Milligan	Loysville	11.34	R:GH	12,913	427.7
Geo. G. Beaver	Millerstown	17.47	RH	10,739	400.7
Jonathan R. Black	Millerstown	6.96	R:GH	9,859	369.0
Howard W. Dromgold	New Bloomfield	14.98	R:GH	9,227	307.1
Harvey N. Bernheisel	Green Park	10.99	R:GH	9,364	305.6

POTTER COUNTY—(Ulysses Association)

Emerson M. Perrine, Paul J. Gregory, Testers

C. W. Warriner & Sons	Harrison Valley	13.84	RH	12,316	434.7
J. K. Martin	Galeton	10.35	R:GH	11,167	402.1
L. C. Traub	Galeton	8.58	R:GH	8,741	361.4
John Bauer	Emporium	20.68	RH	10,419	347.3
Edward Kosa	Ulysses	15.25	R:GH	8,900	340.0
Leon Cass	Ulysses	17.69	RJ	6,870	339.0
Lawrence E. Buck	Ulysses	19.06	RH	9,522	338.7
Henry C. James	Genesee	9.00	RA	7,569	317.6
Harry B. Lent	Coudersport	12.50	R:GH	8,776	313.6
N. J. Leete & Son	Coudersport	37.16	RH	8,385	302.9

POTTER COUNTY—(Potter No. 2 Association)

Emerson Perrine, Tester

Straley Bros.	Germania	11.04	R:GH	9,598	326.1
H. E. Jones	Shinglehouse	7.51	RH	8,671	311.3

SCHUYLKILL COUNTY—(Schuylkill Association)

Henry Lindner, Tester

William Buechley	Pottsville	12.20	RJ	6,889	364.0
Arthur Heisler	Tamaqua, RD	23.39	R:GH:GG	9,896	363.5
Guy S. Reed	Summit Station	19.66	R:GH:Mix	9,538	355.5
Edwin Schadle	Valley View	16.31	GH:GG	9,857	350.9
J. F. Bast & Sons	Schuylkill Haven	17.96	R:GH:GG	9,644	348.0
I. Earl Paxson	Schuylkill Haven	23.00	R:GH:Mix	9,191	345.9
U. E. Rhein	Pine Grove	11.12	R:GJ	6,371	345.4
Schuylkill Co. Almshouse	Schuylkill Haven	30.07	R:GA	8,153	337.0
Arthur Morgan	Pitman	11.33	R:GH:GJ	9,369	328.6
John Dietz	Schuylkill Haven	16.55	R:GH:Mix	8,433	328.4
Sharp Mountain Farm	Pottsville	16.31	R:GJ: R:GH	7,139	328.2
Robert Ludwig	Hegins	20.48	R:GG: R:GH	8,772	327.6
John Wenerich	Pine Grove, RD	13.61	R:GJ	6,211	323.7
A. T. Riegel	Schuylkill Haven, R	22.97	R:GH	8,857	307.0

SOMERSET COUNTY—(Somerset Association)
William Ditto, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
**Somerset Co. Home	Somerset	40.39	RH	11,546	394.6
Meyers Brothers	Meyersdale	19.93	RBS	9,184	377.8
George D. Engle	Berlin, R 2	13.49	GJ	7,742	377.1
O. W. Beachley	Somerset, R 3	17.93	R:GH	10,041	365.3
John E. Brant	Friedens, R 1	19.58	Mixed	8,272	345.6
Menno Yoder	Meyersdale	29.02	RJ	5,991	316.7

**Partly 3 times milking.

SULLIVAN COUNTY—(Western Sullivan Association)
Vernon M. Hatch, Tester

Thomas Doyle	Dushore	10.56	R:GH	11,063	394.2
Fred L. Shaffer	Forksville	11.56	GH	8,887	366.3
Bernard J. Shaffer	Dushore	7.15	P:GG	7,927	351.3
Dean Battin	Wheelerville	18.48	R:GH	9,218	340.5
B. C. Adams	Colley	8.27	GG	6,533	339.2
Daniel J. Scanlon	Dushore	10.07	R:GH	9,280	305.7
S. B. Kilmer & Son	Dushore	10.32	GG	6,670	301.1

SUSQUEHANNA COUNTY—(Western Susquehanna No. 1 Association)
Eugene A. Erb, James Eagelman, Testers

Floyd Hibbard	Springville	14.28	RH	11,442	380.8
Fernheim Farm	Montrose	21.03	RA	8,298	363.4
R. L. Carter	Rush	23.47	R:GG	6,898	335.6
S. R. Ellsworth	Meshoppen, RD	16.01	RA	9,204	325.5
M. K. Bush	Montrose	19.66	RH	8,682	307.7

SUSQUEHANNA COUNTY—(Western Susquehanna No. 2 Association)
Carlton E. Ferris, Tester

F. R. Cope, Jr.	Dimock	14.40	RH	10,649	355.4
G. C. Comstock, Jr.	Montrose	17.64	R:GG	7,355	354.1
Theron Cooley	Nicholson	21.67	R:GH	9,750	331.8
Scott & Bush	Montrose	18.38	RH	9,655	323.0
G. C. Shafer	Brackney, RD	24.54	R:GH	8,533	306.3
Ray Walworth	New Milford	25.19	R:GH	8,556	300.4

SUSQUEHANNA COUNTY—(Choconut Association)
Elston Carter, Tester

A. J. Patton	Brackney	16.55	R:GH	9,547	365.0
Allen Jayne	Laceyville	14.51	GH:G	8,386	318.6
Thomas Patton	Vestal, N. Y.	24.39	R:GH	8,807	317.9

SUSQUEHANNA COUNTY—(Gelatt-South Gibson Association)
B. E. Whitney, Tester

Wilmot Bros.	Jermyn	20.33	R:GH	10,639	395.9
Cordie Allen	Nicholson	15.79	RH	11,397	385.4
Curtis Allen	Nicholson	19.96	R:GH:Mix	9,919	358.0
A. L. Bowell	Thompson	20.45	RH	9,716	346.4
W. J. Horton	Clifford	28.93	R:GH	9,097	308.8
Everett Lee	Carbondale	17.87	R:GH	8,484	301.9

TIOGA COUNTY—(Mansfield Association)
Richard C. Knowlton, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Ray Woodard	Mansfield	13.17	GH	11,369	428.0
Roy Whittaker	Covington	15.47	GH	10,253	342.2
Ralph H. Benson	Mansfield	29.70	GH	9,070	336.1
Ernest M. Bolt	Covington	19.28	R:GH	9,261	333.8
Fay O. Purvis	Covington	22.87	R:GH	8,192	312.1

TIOGA COUNTY—(Liberty Association)
Grant Roupp, Jr., Tester

Albert Norman	Liberty	16.38	RJ	7,779	424.1
Dan Bonnell	Liberty	14.31	R:GJ	7,634	394.9
Chancey Brion	Liberty	13.50	R:GH	10,323	371.5
Clarence Beck	Liberty	8.97	Mixed	8,761	360.7
Ed. W. Brion	Liberty	12.00	R:GJ:H	7,635	353.2
H. L. Holcomb	Liberty	10.07	RH:GJ	9,160	348.8
Marshall Bros.	Liberty	22.16	R:GG:GH	8.236	346.4
Wilbur Brion	Liberty	10.28	Mixed	8,399	333.6
Carl Schanbacher	East Point	15.55	R:GH	8,833	306.0
Walter Krotzer	Liberty	11.20	R:GH	8,749	304.7
Gordon Parker	Liberty	16.41	R:GH	8,402	301.1

TIOGA COUNTY—(Jackson Association)
Ward McConnell, Tester

E. N. Garrison	Millerton	12.03	RJ	8,474	472.6
W. W. Deming	Millerton	16.69	RJ	7,887	406.0
Frank Bly	Pine City, N. Y.	15.95	RJ	7,358	396.9
Dan Bly	Pine City, N. Y.	10.90	RJ	6,995	383.5
Fred Tillinghast	Gillett	17.87	RJ	6,673	348.1
Fred Bower	Pine City, N. Y.	28.09	R:GH: R:GJ	9,194	342.7
John Kasper	Pine City, N. Y.	29.78	R:GH: R:GJ	9,104	332.7
A. D. Prutsman	Millerton	26,67	RH	9,127	323.6
J. L. Eighmey	Millerton	15.00	R:PJ	6,192	321.7
Ford Smith	Millerton	19.56	R:GJ	6,159	319.7
W. E. Garrison	Millerton	21.10	RG	6,564	318.3
Victor H. Hurd	Millerton	18.62	Mixed	7,037	314.2
R. L. Bement	Lawrenceville	14.83	R:GG	6,269	313.3
A. G. Miller	Pine City, N. Y.	23.57	RH:GG	9,051	313.2
L. R. Stevens	Millerton	21.33	R:PH	8.807	310.4
Foster Wilson	Millerton	15.99	R:GJ	5,921	309.2
E. B. Suencer & Son	Millerton	30.33	RH	8,898	305.7

TIOGA COUNTY—(Wellsboro Association)
George W. Thompson, Tester

George B. Butler	Wellsboro	15.28	R:GG	8,612	412.6
Wm. A. Stevens	Wellsboro	10.64	RH	10,503	354.4
Rhodes Butler	Tioga	11.71	GH	9,513	345.4
Ralph Sampson	Crooked Creek	17.26	R:GH	10,169	340.7
Lewis Treat	Tioga	13.93	GH	10,194	330.5
Clark Bowen	Wellsboro	11.76	RH	9,030	301.4

TIOGA COUNTY—(Cowanesque Valley Association)
Donald Reinsel, Tester

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
F. W. Bertch	Knoxville	19.38	R:GH	10,647	396.0
U. O. King & Son	Knoxville	19.25	R:GG	7,757	350.9
D. R. Butler	Knoxville	10.75	RG	6,503	332.9
Lloyd Swimley	Westfield	17.31	R:GG	7,535	329.2
Cleon Cobb, J. F. Hegman	Westfield	17.75	P:GH	8,865	312.9
E. J. Peters	Osceola	7.79	R:GJ	6,790	310.6
H. A. Decker, M. D. Pride	Westfield	29.19	RH	8.936	306.7
Mrs. Clem Jordan & Son		16.00	Mixed	8,269	304.1

UNION COUNTY—(Buffalo Valley No. 1 Association)
Floyd L. Cole, Tester

*A. C. Slifer	Lewisburg	9.48	RH	13,845	477.6
H. K. Benner	Vicksburg	8.62	R:GH	11,940	408.4
C. E. Erdley	Lewisburg	23.21	RH	11,983	397.1
W. S. Erdley	Lewisburg	11.01	RH	10,858	386.0
Oscar Brouse	Mifflinburg	7.15	R:Sw	9,128	385.9
Carrie Lincoln	Laurelton	10.96	R:GH:Sw	10,501	385.8
J. S. Wehr	Mifflinburg	15.18	RH	10,358	361.3
W. J. Erdley	Mifflinburg	10.16	RH	10,824	360.3
A. A. Winter	Lewisburg	12.73	RG	6,811	358.4
H. H. Moll	Millmont	10.32	R:GH:Mix	8,537	344.9
J. S. Zeigler	Lewisburg	26.29	R:GH	9,799	342.8
Glover & Wagner	Vicksburg	11.84	R:GH:Mix	8,536	334.6
David E. Voneida	Lewisburg	14.67	RSw	8,688	328.0
J. M. Erdley	Lewisburg	18.02	R:GH	9,225	317.5
R. E. Musser	Lewisburg	16.27	RH	9,242	303.1

*3 times milking daily.

UNION COUNTY—(Buffalo Valley No. 2 Association)
Albert C. Walker, Floyd L. Cole, Testers

**Laurelton State Village	Laurelton	36.60	GH	12,859	445.1
Robert J. Smith	Millmont	8.73	RH	12,775	433.1
H. B. Clouser	New Columbia	9.96	GH:GJ	9,936	375.0
Calvin Stahl Estate	Lewisburg	9.12	RH	9,705	320.6
John Grubb	Mifflinburg	16.76	R:GH	9,294	316.8
L. A. Troxell	New Columbia	10.84	R:GH	9,515	307.3
J. D. Shreck	Lewisburg	10.17	R:GH	9,006	304.7

**Partly 3 times milking daily

VENANGO COUNTY—(Venango Association)
John E. Baker, Tester

Polk State School	Polk	156.33	RH	12,786	429.9
Lee J. Hancox	Titusville, R 5	11.40	R:GG:Mix	9,117	412.4
John L. Mitchell	Oil City, R 1	9.03	R:GG	7,672	385.1
J. D. Jack	Emlenton, R 2	8.25	R:GG	7,470	384.5
County Farm	Franklin, R 5	12.10	RH	10,218	337.1
D. H. Morrison	Van, R 1	10.99	RG	6,918	329.2
C. H. Hancox	Titusville, R 5	6.87	Mixed	7,913	319.1
E. B. Ghering	Titusville, R 4	6.84	Mixed	6,319	314.6
E. W. Shaffer	Titusville, R 5	13.79	R:GG	6,299	309.9
R. W. Strawbridge	Diamond, R 2	8.33	RJ	6,054	303.6

WARREN COUNTY—(Warren Association)
L. F. Hawley, Wendell Bauer, Testers

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
*Warren State Hospital	Warren, Box 204	108.26	R:GH	12,793	419.7
King Brothers	Akeley	8.95	RH	10,308	365.7
Rouse Hospital	Youngsville	24.10	R:GH	9,879	334.1
C. A. Kibbey	Warren	21.27	R:GG	6.583	313.3
Mrs. A. J. Leofsky	Spring Creek, R 3	14.17	GH:Mix	8,362	311.6
Victor O. Lundmark	Akeley	6.63	GH:Mix	8,225	310.0

*Part 3 times milking.

WASHINGTON COUNTY—(Washington Association)
R. T. Caldwell, R. C. Mayhew, Testers

Penna. Training School	Morganza	28.18	R:GH:RJ	11,558	413.0
P. F. Morris	Charleroi, R 1	14.41	RJ	7,841	395.9
Alex. Hamilton & Sons	Washington	16.28	R:GG	7,375	370.6
G. A. McWreath	McDonald	12.61	RH	11,733	364.9
J. Ard Cowden	McDonald	23.91	R:GH:Mix	9,169	341.5
V. C. McCracken	Charleroi, RD	14.33	P:GJ	6,491	341.5
Homer M. Lowry	Rea, R 2	13.42	Mixed	7,937	322.5
J. A. Dinsmore	Washington, R 3	30.51	RJ	6,015	319.1
A. W. Morrison	Eighty-Four	8.14	R:GJ	6,157	313.0

WAYNE COUNTY—(Lake Ariel Association)
Theron L. Johnson, Walter L. Haldeman, Testers

John Swingle	Lake Ariel, R 2	9.54	R:GH:GG	11,062	417.6
**John Simpson	Lake Ariel	15.78	RH:GG	10,596	402.0
Elmer Miller	Waymart, R 2	17.11	R:GH	8,262	303.7

**Partly 3 times milking.

WAYNE COUNTY—(Clinton Association)
Walter L. Haldeman, Tester

Farview Hospital	Waymart	14.34	R:GH	13,059	444.0
**Clarence Moase	Pleasant Mount	14.32	R:GH	11,841	440.4
**Bethany Homestead Farms	Honesdale	51.15	RG	8,491	438.9
R. G. Erk	Prompton	35.19	RJ:RH	7,489	378.8
H. A. Robinson	Seelyville	10.19	RJ	6,365	370.5
C. F. Drake	Waymart	39.42	R:GH: R:GJ	8,729	361.5
**W. F. Hauensten	Waymart	24.79	RJ	7,068	342.6
Edw. Erk	Seelyville	26.72	RJ	6,190	340.9
B. F. Kennedy	Pleasant Mount	31.65	GH	9,202	312.7
E. E. Kinsman	Honesdale	28.49	RH	8,624	305.5
Chester Rickard	Honesdale	18.89	R:GH: P:GJ	8,345	301.5
Bartholomay Bros.	Vandling	26.30	R:GG: P:GH	6,704	300.5

**Partly 3 times milking.

WAYNE COUNTY—(Preston Association)
Robert L. Arnold, Tester

H. E. Woodmansee	Starlight	24.45	GH	10,533	374.4
**Monaghan Brothers	Lakewood, R 1	31.09	R:GH	9,545	335.9
E. J. Howell	Lakewood	14.96	P:GH	8,898	333.5

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
**H. K. Stone	Mt. Pleasant	33.87	R:GH	9,250	330.6
Fred Erk	Starrucca	32.90	RH	8,823	304.1
R. H. Leet	Starrucca	24.40	R:GH	8,782	303.2
J. LaStrange	Mt. Pleasant	59.73	R:GH	8,670	301.7
B. F. Holbert	Starrucca	14.11	GH:Mix	8,067	301.1
**I. R. Doyle	Poyntelle	14.63	GH:Mix	8,197	300.2

**Partly 3 times milking.

WAYNE COUNTY—(Damascus Association)
Theron L. Johnson, Tester

Walter Blum	Milanville	16.77	R:GH	12,085	429.2
Clarence E. Canfield	Damascus	17.21	RH	10,931	377.8
W. J. Robbins	Beach Lake	17.66	RH	10,191	376.0
David North	Galilee	8.24	Mixed	7,328	319.6

WYOMING COUNTY—(Mehoopany Association)
Donald Hindman, Tester

Alfred Hallock	Laceyville	10.41	RH	11,970	419.4
Howard Brunges	Tunkhannock	37.74	R:GJ	7,314	352.2
E. V. Prevost	Tunkhannock	17.98	RH	9,540	336.8
Herbert Hunter	Falls	12.36	R:GH	9,144	331.4
H. & C. Love	Mehoopany	25.21	R:GG	6,646	325.2
Burrel Burgess	Tunkhannock	12.78	R:GG	6,215	305.9

WESTMORELAND COUNTY—(Westmoreland No. 1 Association)
Norman C. Farlow, Tester

F. M. Kintigh	Irwin, R 2	11.10	R:GG:Mix	8,433	365.5
Joseph Kim	Larimer	14.88	R:GH:Mix	9,574	362.0
Miss I. C. Wohlwend	Salina	10.75	RS	8,626	351.5
J. H. Seanor	New Alexandria	20.40	R:GH	9,772	334.6
John Moffat	New Alexandria	16.91	R:GG	7,549	327.9
St. Vincent Archabbey	Latrobe	66.87	R:GH	9,981	323.1
J. M. & C. A. Lemon	Saltsburg	24.36	P:GH:RJ	8,376	310.8
R. C. Lemon & Son	Saltsburg, R 2	10.26	R:GH	8,889	301.2

WESTMORELAND COUNTY—(Westmoreland No. 2 Association)
Ralph W. Albright, Tester

**Westmorel'd Co. Home	Greensburg	19.52	RH	16,578	571.4
E. G. Summy	Mt. Pleasant	17.94	R:GH	9,839	354.0
J. E. Wineman	Youngwood	17.36	R:GH:Mix	9,623	348.9
J. C. Gongaware	Greensburg, R 2	16.15	R:GG:Mix	6,849	316.7
Seton Hill College	Greensburg	19.95	R:GH	9,212	315.0
S. W. Heath	Belle Vernon	21.25	R:GG	6,561	313.5
*C. L. Cunningham	Greensburg	14.84	Mixed	8,406	308.7

*9 months' records.
**Partly 3 times milking.

YORK COUNTY—(Northern York Association)
Wm. F. Schaefer, Jr., Tester

John S. Brandt	Dallastown	20.88	R:GG:H	8,504	385.9
J. J. Hamme	Abbotstown	14.70	RG	7,732	385.9
H. M. and M. B. Emig	Hellam	25.65	R:GJ:GH	9,230	368.3
Geo. W. Bacon	York	39.51	R:GG	7,853	368.0

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Wm. F. Dummer	Mt. Wolf	14.01	R:GH:GG	10,108	357.8
J. A. Poorbaugh	York, R 3	42.36	R:GG	7,438	348.2
Frank L. Krall & Son	East Berlin	27.79	RH	9,793	345.6
Chas. A. Schaefer	York	13.09	RG	6,583	341.3
Mrs. S. F. Raab & Son	Dallastown	14.16	R:GH	9,289	336.6
David Bahn	York, R 3	13.77	R:GH:G	9,606	334.5
Mahlon N. Haines	York, R 7	21.09	R:GH:G	8,801	332.3
Urias Innerst & Sons	Dallastown	22.91	R:GH:Mix	9,155	329.8
C. Allen May	York, R 5	28.71	R:GG	7,080	329.7
Brenner Farm (J. E. Baker)	Mt. Wolf	19.89	R:GJ	6,527	319.8
J. Raymond Arnold	Hellam	45.42	R:GG	6,847	319.7
D. D. Hoover	Wellsville	6.41	RH	9,948	309.8

YORK COUNTY—(Southern York Association)
Robert M. Scott, Tester

*Lauxmont Farms (S. Ferry Laucks)	Wrightsville	48.84	RH	13,054	459.6
H. J. Handley	Delta	14.76	Mixed	9,131	384.8
S. S. Bortner	Glenville	7.51	R:GH	10,827	384.1
W. M. Carico	Delta	23.49	GG:Mix	8,868	383.8
**J. B. Fishel	York	32.09	RA	9,293	381.0
H. G. Hall	Stewartstown	20.69	R:GH	9,852	377.2
**Lauxmont Farms (S. Ferry Laucks)	Wrightsville	20.55	RJ	7,050	363.2
Wm. J. Parlett	Woodbine	8.56	GG:GH	8,141	362.5
**W. S. Grimm	Red Lion	47.73	RH	10,031	359.8
Emory M. Kilgore	Woodbine	11.78	R:GG	7,311	345.1
Stiles & Lentz	Seven Valleys	7.93	RG	6,482	329.0
Wm. R. Brown	Delta	28.24	RH:J	8,412	323.2
Dale D. Kilgore	Woodbine	10.93	R:GG	6,694	320.7
Jno. N. Mackison, Jr.	Delta	6.08	Mixed	7,994	318.9

*3 times milking.
**Partly 3 times milking.

LIST OF MEMBERS WHO PAID THEIR DUES IN 1934

The association will appreciate notification of any errors in this list.

ADAMS COUNTY—(NO MEMBERS)

ALLEGHENY COUNTY—(11 MEMBERS)

Baumgartel, William E. ---- Box 83, Sewickley, Pa.
Bell, John A., Jr. ---- Sewickley, Pa.
Craig ,A. B. ---- 808 Columbia Bank Bldg., Pittsburgh, Pa.
Donaldson, R. M. ---- Box 116, Midway, Pa.
Garey, Carey C. ---- Farm Hill Dairy, Sewickley, Pa.
Guffey, J. D. ---- Elizabeth, R. D., Pa.
Koenig, H. R. ---- R. D. 1, Box 183, Tarentum, Pa.

Mowry, C. E.---R. D., Willock, Pa.
Rice, Gordon J.---R. D. 2, Coraopolis, Pa.
Scott, Walter---Elizabeth, R. D., Pa.
Stark, L. M.---451 Century Bldg., Pittsburgh, Pa.

ARMSTRONG COUNTY—(4 MEMBERS)

Hileman, Audley---Ford City, Pa.
Smeltzer, M. A.---Nu Mine, Pa.
Steele, Ralph W.---Kittanning, Pa.
Sturgeon, W. J.---Kittanning, Pa.

BEAVER COUNTY—(No MEMBERS)

BEDFORD COUNTY—(2 MEMBERS)

Coxe, Fredrick W.---Everett, Pa.
Feather, Charles R.---Schellsburg, Pa.

BERKS COUNTY—(16 MEMBERS)

Archer, Caroline---Flying Hill Farm, Reading, Pa.
Barnhart, Roy T.---Wernersville, Pa.
Bethany Orphans Home---Womelsdorf, Pa.
Chafey, William---Shillington, Pa.
Cullum, Allen M.---Riveredge Farm, Reading, Pa.
Ernst, Arthur M.---Mohrsville, R. D., Pa.
Fowler, E. P.---211 N. 5th St., Reading, Pa.
Hopper, Nathan H.---R. D. 1, W. Leesport, Pa.
Huff, Ivan---Riveredge Farm, Reading, Pa.
Ritzman, Charles---Sinking Springs, Pa.
Rothenberger, Dr. Geo. L.---Esterly, Pa.
Scheidy, C. Levi---R. D. 1, Bernville, Pa.
Schaum, Lyman G.---Womelsdorf, Pa.
Sycamore Farms---Douglassville, Pa.
Thompson, John---Wernersville, Pa.
Whittier, Warren F.---Douglassville, Pa.

BLAIR COUNTY—(9 MEMBERS)

Bagshaw, Cloyd---Hollidaysburg, Pa.
Bagshaw, K. S.---Hollidaysburg, Pa.
Bagshaw, Miles C.---Hollidaysburg, Pa.
Burket, John W.---R. D. 1, Tyrone, Pa.
Hammill, E. G.---Hollidaysburg, Pa.
Long, Alva R.---Portage, Pa.
Perry, Richard James---c/o Blair County Home, Hollidaysburg, Pa.
Smith, Preston C.---Martinsburg, Pa.
Tussey, R. I.---R. D. 3, Hollidaysburg, Pa.

BRADFORD COUNTY—(22 MEMBERS)

Arnold, R. B.---Milan, Pa.
Baker, C. V.---LeRaysville, Pa.
Bennett, M. V.---Lacyville, Pa.
Campbell, Fred---Wyalusing, R. D. 1, Pa.
Chaffee, C. S.---Ulster, Pa.

Culver, C. B.---Lacyville, Pa.
Dorr, Paul F.---Ulster, Pa.
Erway, Clifton---Canton, Pa.
Gorham, Claude S.---LeRaysville, Pa.
Harris, G. E.---Milan, Pa.
Harris, L. A.---Milan, Pa.
Howard, John H.---Wyalusing, Pa.
McCarty, Taylor---Sugar Run, Pa.
Neal, M. E.---Ulster, Pa.
Reber, P. N.---Towanda, Pa.
Spencer, Clarence---Canton, Pa.
Stoll, I. V.---Rome, Pa.
Von Wolffradt, H. G.---Athens, Pa.
White, W. W.---Snedekerville, Pa.
Whitney, B. E.---905 Main St., Towanda, Pa.
Williams and Sons, R. G.---Canton, Pa.
Young, Damon---Milan, Pa.

BUCKS COUNTY—(18 MEMBERS)

Cliffe, J. Howard---Ivyland, Pa.
Diehl, D. Horace---Pipersville, Pa.
Dietrich, C. G.---Bolton Farm, Bristol, Pa.
Greenawalt, W. F.---Agr. Ext. Office, Doylestown, Pa.
Hockman, Harvey K.---R. D. 1, Chalfont, Pa.
Hunsberger, Willis M.---Plumsteadville, Pa.
McConnell, J. D.---Solebury, Pa.
Satterthwaite, Lewis P.---Newtown, Pa.
Satterthwaite, M. C.---Woodside, Pa.
Shelley, J. Arthur---Fountainville, Pa.
Smith, Clarence---Wycombe, Pa.
Stewart, E. F.---Colmar, Pa.
Thompson, J. C.---Farm School, Pa.
Twining, F. M.---Newtown, Pa.
Twining, Wilmer---Wycombe, Pa.
Wentz, Homer---Quakertown, Pa.
Whitman, Earl---Dublin, Pa.
Worthington, Alvin---Newtown, Pa.

BUTLER COUNTY—(3 MEMBERS)

Fergus, Hugh---Slippery Rock, Pa.
Hock, George J.---Harmony, Pa.
Taylor, Wm. E.---Parker's Landing, Pa.

CAMBRIA COUNTY—(2 MEMBERS)

Griffith Estate, Webster---Ebensburg, Pa.
Jones, Edward---Wilmore, Pa.

CAMERON COUNTY—(1 MEMBER)

Bauer, John---Emporium, Pa.

Carbon County—(2 Members)

Behrens and Sons, F. C.—East Mauch Chunk, Pa.
Zimmerman, L. A.—Lehighton, Pa.

Centre County—(19 Members)

Bailey, D. H.—State College, Pa.
Beam, A. L.—State College, Pa.
Bechdel, Dr. S. I.—State College, Pa.
Blaney, R. C.—Bellefonte, Pa.
Borland, A. A.—State College, Pa.
Davidson, Fred—Warriors Mark, Pa.
Fitts, E. B.—State College, Pa.
Gearhart, C. R.—State College, Pa.
Jones, P. D.—State College, Pa.
Mayes, William—Howard, Pa.
Nageotte, Joe—State College, Pa.
Olmstead, R. H.—State College, Pa.
Peter Bros.—Port Matilda, Pa.
Shoemaker Bros.—State College, Pa.
Sidelmann, I. O.—State College, Pa.
Swope, W. D.—State College, Pa.
Weight, Geo. E.—R. D. 2, Bellefonte, Pa.
Welch, R. R.—State College, Pa.
Whiteman, Ira—Oak Hall Station, Pa.

Chester County—(16 Members)

Brinton, Robert F.—West Chester, Pa.
Davis, S. Penrose—Downingtown, Pa.
Folwell, Mrs. Mary C.—R. D. 2, Newark, Delaware
Foster, Frank—Montcalm Farms, Phoenixville, Pa.
Harney, Thomas P.—R. D. 5, West Chester, Pa.
Jones, M. L.—Westtown, Pa.
Kane, Mrs. John Kent—Shirley Farms, Glenloch, Pa.
Keen, Frank A.—West Chester, Pa.
Knollin, Eugene S.—Berwyn, Pa.
Pate, Harry M.—Kennett Square, Pa.
Philips, Morris T.—Pomeroy, Pa.
Reeves, William I.—R. D., West Chester, Pa.
Shenk, H. B.—Elverson, Pa.
Shingle, Warren H.—Downingtown, Pa.
Tessier, Larry O.—Cossart, Pa.
Williams, Ray L., Mgr.—Many Springs Farm, New Centerville, Pa.

Clarion County—(5 Members)

Gruber, J. P.—Shippensville, Pa.
McCauley, C. A.—New Bethlehem, Pa.
Miller, F. K.—Clarion, Pa.
Shook, Ray H.—Sligo, Pa.
Wetzel, Wendell—c/o Agr. Ext. Office, Clarion, Pa.

Clearfield County—(2 Members)

McKeage, John A.—Mahaffey, Pa.
Mitchell, W. O.—Clearfield, Pa.

Clinton County—(5 Members)

Hayes, Hugh C.—Mackeyville, Pa.
Knecht, H. L.—Mill Hall, Pa.
Kryder, T. C.—Mill Hall, Pa.
Kyle, Loudon—Mackeyville, Pa.
McCool, J. B.—Lock Haven, Pa.

Columbia County—(2 Members)

Breisch, R. J.—Catawissa, R. D., Pa.
Hummer, J. S.—Bloomsburg, Pa.

Crawford County—(12 Members)

Bauer, Wendell—c/o Agr. Ext. Office, Meadville, Pa.
Crowl, Albert—Guys Mills, Pa.
Farrington, J. S.—R. D. 3, Spartansburg, Pa.
Hartzel, Aaron S.—R. D. 1, Westford, Pa.
Hummer, G. M.—R. D. 2, Titusville, Pa.
Hummer and Son, E. W.—Titusville, Pa.
Luce, Lee—Guys Mills, Pa.
Poux, Joseph—Guys Mills, Pa.
Reitze, Wesley—R. D. 5, Meadville, Pa.
Shoemaker, L. K.—Agr. Ext. Office, Meadville, Pa.
Southwick, John—R. D., Titusville, Pa.
Yingling, Carl—R. D. 1, Centerville, Pa.

Cumberland County—(11 Members)

Barnes, M. F.—140 Walnut Street, Lemoyne, Pa.
Basehore, Mark R.—R. D. 4, Mechanicsburg, Pa.
Landis, S. E.—Newville, Pa.
Loy, Guy L.—Newville, Pa.
McCullough, H. K.—Newville, Pa.
Niesley, Cyrus G.—R. D. 1, Mechanicsburg, Pa.
Otto, Ivo V.—R. D. 6, Carlisle, Pa.
Raudabaugh, A. A.—Carlisle, Pa.
Shughart, J. Paul—Mechanicsburg, Pa.
Smith, J. Brady—Shippensburg, Pa.
Strong, John I.—Mechanicsburg, Pa.

Dauphin County—(18 Members)

Bishop, Dr. C. P.—1906 Mulberry St., Harrisburg, Pa.
Bucher, Warren—Municipal Bldg., Harrisburg, Pa.
Cassell, C. E.—Hershey, Pa.
Clarkson, Dr. P. V.—Bureau of Animal Industry, Harrisburg, Pa.
Dauphin County Home—R. D. 2, Harrisburg, Pa.
Erdman, Aaron—Elizabethville, Pa.
Erdman, Earl E.—Elizabethville, Pa.
Frommeyer, A. S.—Municipal Bldg., Harrisburg, Pa.

Harrisburg State Hospital ---------- Harrisburg, Pa.
Hershey Estate, (D. F. Dept.) ---------- Hershey, Pa.
Lauffer, Max A. ---------- R. D. 1, Middletown, Pa.
Odd Fellows Home of Pennsylvania ---------- Middletown, Pa.
Olsen, Emil ---------- Chamber of Commerce, Harrisburg, Pa.
Rasmussen and Cater ---------- Hummelstown, Pa.
Turns, H. S. ---------- R. D. 1, Harrisburg, Pa.
Weiss, Benjamin A. ---------- R. D. 1, Lykens, Pa.
Wightman, P. H. ---------- Dauphin, Pa.
Williams, Samuel B., Jr. ---------- Highspire, Pa.

DELAWARE COUNTY—(2 MEMBERS)

Fetterman, J. Gordon ---------- Media, Pa.
Montgomery, A. R. ---------- Ithan, Pa.

ELK COUNTY—(3 MEMBERS)

Grotzinger, E. J. ---------- St. Marys, Pa.
Larson & Son, A. ---------- Box 128, Ridgway, Pa.
Rockwell, A. C. ---------- Court House, Ridgway, Pa.

ERIE COUNTY—(5 MEMBERS)

Goodwell, J. L. ---------- R. D. 2, Corry, Pa.
Ingram, T. S. ---------- R. D. 2, Corry, Pa.
Marsh, H. H. ---------- Waterford, Pa.
Stuntz, H. E. ---------- Girard, Pa.
Williams, R. J. ---------- Wattsburg, Pa.

FAYETTE COUNTY—(5 MEMBERS)

Gans, Herbert M. ---------- Gans, Pa.
Leighty, T. C. ---------- c/o Connellsville Pure Milk Co., Connellsville, Pa.
McCormick, S. O. ---------- New Salem, Pa.
Shaffer, H. L. and J. B. ---------- Pleasant Level Dairy, Connellsville, Pa.
Stewart, W. J. ---------- Brownsville, Pa.

FOREST COUNTY—(1 MEMBER)

Smith, Russel M. ---------- Tionesta, Pa.

FRANKLIN COUNTY—(6 MEMBERS)

Aughinbaugh, J. W. ---------- Mercersburg, Pa.
Barkdoll, Wilbur F. ---------- Mont Alto, Pa.
Dunning, E. C. ---------- 622 Montgomery Ave., Chambersburg, Pa.
Foreman, J. M. ---------- 344 W. Main St., Waynesboro, Pa.
Miller, R. G. ---------- 218 S. Main St., Chambersburg, Pa.
Wilson Sisters ---------- Metal, Pa.

FULTON COUNTY—(No MEMBERS)

GREENE COUNTY—(No MEMBERS)

HUNTINGDON COUNTY—(5 MEMBERS)

Clark, R. S. ---------- Huntingdon, Pa.
Fagan, R. C. ---------- R. D., Huntingdon, Pa.
Grazier, H. E. ---------- Warriors Mark, Pa.

Hindman, James E. ---------- R. D. 5, Tyrone, Pa.
Reynolds, J. H. ---------- Federal Bldg., Huntingdon, Pa.

INDIANA COUNTY—(13 MEMBERS)

Buckley, W. F. ---------- R. D., Livermore, Pa.
Houck, Clyde ---------- R. D., Clymer, Pa.
Hyskell, Marshall W. ---------- Smicksburg, Pa.
Johnston, Carl ---------- Agr. Ext. Assn. Office, Indiana, Pa.
Marshall, Dr. F. A. ---------- Indiana, Pa.
Marshall, R. D. ---------- Beyer, Pa.
Pollock, Clark C. ---------- Marion Center, Pa.
Rice, E. G. ---------- Box 78, Dixonville, Pa.
Stewart, M. C. ---------- R. D. 1, Homer City, Pa.
Travis, H. M. ---------- R. D., Smicksburg, Pa.
Warner, John W. ---------- Indiana, Pa.
Wetzel, Wm. S. ---------- Marion Center, Pa.
White, J. H. ---------- Indiana County Home, Indiana, Pa.

JEFFERSON COUNTY—(3 MEMBERS)

Poorbaugh, H. J. ---------- Brookville, Pa.
Shingledecker, M. W. ---------- Brookville, Pa.
Winslow, J. P. ---------- Brookville, Pa.

JUNIATA COUNTY—(No MEMBERS)

LACKAWANNA COUNTY—(3 MEMBERS)

Hertneck, Leonard ---------- Moscow, Pa.
Hindman, Donald ---------- Waverly, Pa.
McLain, T. A. ---------- Moscow, Pa.

LANCASTER COUNTY—(16 MEMBERS)

Baer, N. N. ---------- Salunga, Pa.
Brendle, I. W. ---------- East Earl, Pa.
Brubaker, M. V. ---------- New Holland, R. D. 2, Pa.
Bushong, B. G. ---------- Columbia, Pa.
Cowan, Charles E. ---------- 367 E. Main, New Holland, Pa.
Fritz, Dr. B. Scott ---------- Strasburg, Pa.
Gallagher, Lester ---------- Peach Bottom, Pa.
Gatchell, Harlan S. ---------- Peach Bottom, Pa.
Hartz, Ira ---------- Elverson, R. D. 3, Pa.
Horst, Jacob S. ---------- Bareville, R. D. 1, Pa.
Kendall, Albert W. ---------- Box 413, Lancaster, Pa.
Martin, Ivan G. ---------- Ephrata, R. D. 1, Pa.
Martin, Luke W. ---------- Goodville, Pa.
Masonic Homes, Thad G. Helm, Supt. ---------- Elizabethtown, Pa.
Sauder, Geo. G. ---------- East Earl, R. D. 1, Pa.
Shirk, H. S. ---------- Blue Ball, Pa.

LAWRENCE COUNTY—(1 MEMBER)

Bronson, John W. ---------- New Galilee, R. D. 1, Pa.

LEBANON COUNTY—(11 MEMBERS)

Anspach, Harry C. ---- Jonestown, R. D. 1, Pa.
Bennetch, J. H. ---- Sheridan, Pa.
Berger, A. C. ---- Lebanon, Pa.
Brubaker, A. G. ---- Myerstown, R. D. 2, Pa.
Houser, Warren H. ---- Lebanon, Pa.
Kreider, Arthur R., Herdsman (Fairview Farm) ---- Cornwall, Pa.
Royer, Robert B. ---- Lebanon, R. D. 1, Pa.
Schott, J. H. ---- Lebanon, R. D. 1, Pa.
Scott, L. Z. ---- Lebanon, R. D. 6, Pa.
Smith, Jacob N. ---- Annville, R. D. 1, Pa.
Westenberger, C. W. Manager (Fairview Farm) ---- Cornwall, Pa.

LEHIGH COUNTY—(2 MEMBERS)

Drayer, M. A. ---- State Hospital, Allentown, Pa.
Houston, V. A. ---- State Hospital, Allentown, Pa.

LUZERNE COUNTY—(1 MEMBER)

Sampson, T. J. ---- Retreat, Pa.

LYCOMING COUNTY—(3 MEMBERS)

Love, Alva R. ---- Williamsport, Pa.
Lunger, J. D. ---- Lairdsville, Pa.
Snyder, H. A. ---- Montoursville, Pa.

MCKEAN COUNTY—(2 MEMBERS)

Gustafson Brothers ---- Kane, R. D., 1, Pa.
Ross, W. A. ---- Smethport, Pa.

MERCER COUNTY—(5 MEMBERS)

Greenville Dairy Co. ---- Greenville, Pa.
Ingraham, E. S. ---- Mercer, Pa.
Waha, C. H. ---- Mercer, Pa.
Wilhelm Bros. ---- Sharon, R. D. 2, Pa.
Winner, Harold W. ---- Sharpsville, R. D. 3, Pa.

MIFFLIN COUNTY—(1 MEMBER)

Shughart, Lester M. ---- 207 Federal Bldg., Lewistown, Pa.

MONROE COUNTY—(1 MEMBER)

Ifft, Arthur E. ---- 38 N. 7th St., Stroudsburg, Pa.

MONTGOMERY COUNTY—21 MEMBERS)

Allebach, H. D. ---- Trappe, Pa.
Allebach, Harold T. ---- Trappe, Pa.
Bechtel, E. P. ---- 94 Greenwood Ave., Trappe, Pa.
Cassel, I. A. ---- Harleysville, Pa.
Deubler, Dr. E. S. ---- Narberth, Pa.
Gottshall, William S. ---- Yerkes, Pa.
Hibberd, Walter R. ---- Bryn Mawr, Pa.
Kulp, Raymond ---- Schwenksville, Pa.
Magill, David H. ---- West Point, Pa.

Murphy, Harvey ---- Norristown, R. D. 4, Pa.
Powell, Amos L. ---- Conshohocken, Pa.
Pratt, William, Jr. ---- Willow Grove, Pa.
Schell, Henry A., Jr. ---- Phoenixville, Pa.
Schultz, Wayne ---- East Greenville, Pa.
Sellers, Elias ---- Norristown, R. D. 3, Pa.
Shuman, Charles ---- Norristown, R. D. 4, Pa.
Simpson, G. C. ---- Gwynedd Valley, Pa.
Waltz, R. G. ---- Norristown, Pa.
Wismer, Charles E. ---- Trappe, Pa.
Wood, James L., Sr. ---- Red Hill, Pa.
Zollers, I. Ralph ---- 69 N. Hanover St., Pottstown, Pa.

MONTOUR COUNTY—(2 MEMBERS)

Leighow, Dr. G. M. ---- Danville, Pa.
Stephens, A. Woodward ---- Mooresburg, Pa.

NORTHAMPTON COUNTY—(7 MEMBERS)

Kemmerer, C. E. ---- Bethlehem, R. D. 1, Pa.
River Valley Farm ---- Easton, Pa.
Shoemaker, John F. ---- Mt. Bethel, R. D. 5, Pa.
Shoemaker, Milton M. ---- Walnutport, Pa.
Shoemaker, W. W. ---- Walnutport, Pa.
Shook, F. R. ---- Pen Argyl, R. D. 1, Pa.
Way, D. C. ---- Easton, R. D. 2, Pa.

NORTHUMBERLAND COUNTY—(4 MEMBERS)

Clark, Geo., Jr. ---- Shamokin, Pa.
Gauger, W. C. ---- Watsontown, Pa.
Ginck, John ---- c/o F. W. Myer, Sunbury, Pa.
Weidenhomer, Geo. S. ---- Milton, Pa.

PERRY COUNTY—(5 MEMBERS)

Beaver, Bruce E. ---- Millerstown, Pa.
Beaver, George G. ---- Millerstown, Pa.
Dromgold, H. W. ---- New Bloomfield, Pa.
Milligan, Ward R. ---- Loysville, Pa.
Smith, Ralph L. ---- Millerstown, R. D. 4, Pa.

PHILADELPHIA COUNTY—(1 MEMBER)

Rosenberger, Dr. J. N. ---- 431 S. 51st Street, Philadelphia, Pa.

PIKE COUNTY—(No MEMBERS)

POTTER COUNTY—(8 MEMBERS)

Buck, Lawrence E. ---- Ulysses, Pa.
James, Henry C. ---- Genesee, Pa.
Jones, Harry E. ---- Shinglehouse, Pa.
Leete & Son, N. J. ---- Coudersport, Pa.
Martin, J. K. ---- Galeton, Pa.
Potter County Home Farm ---- Coudersport, Pa.
Straw, Bert ---- Coudersport, Pa.
Traub, L. C. ---- Galeton, Pa.

SCHUYLKILL COUNTY—(11 MEMBERS)

Bast & Sons, J. F., c/o Sam Bast—Schuylkill Haven, Pa.
Dietz, John—Schuylkill Haven, Pa.
Gauker, Roy—Cressona, Pa.
Heisler, Arthur—Tamaqua, R. D. 1, Pa.
Lengel, Paul H.—Pine Grove, Pa.
Lindner, Henry—Ringtown, Pa.
Paxson, I. Earl—Schuylkill Haven, Pa.
Rhein, U. E.—Cressona, Pa.
Richards, Maud, Sharp Mountain Farm—Pottsville, Pa.
Riegel, A. T.—Schuylkill Haven, Pa.
Sattizahn, Francis L.—Pine Grove, R. D. 3, Pa.

SNYDER COUNTY—(NO MEMBERS)

SOMERSET COUNTY—(5 MEMBERS)

Brant, Wilbert—Friedens, R. D. 1, Pa.
Engle, George—Berlin, R. D. 2, Pa.
Hickok, Dr. Asa L.—Somerset, Pa.
Kelly, Harry—Johnstown, R. D. 4, Pa.
Meyers Bros.—Meyersdale, Pa.

SULLIVAN COUNTY—(3 MEMBERS)

Hatch, J. A.—Forksville, Pa.
Learn, J. W.—Dushore, Pa.
Rohe, F. V.—Dushore, R. D. 2, Pa.

SUSQUEHANNA COUNTY—(7 MEMBERS)

Brady, Austin J.—Hallstead, Pa.
Dale, N. C.—Montrose, Pa.
Fernheim Farm, S. B. Stephens, Supt.—Montrose, Pa.
Ferris, Carlton—Montrose, Pa.
Patton, A. J.—Brackney, Pa.
Sheen, J. Terrence—South Montrose, R. D. 1, Pa.
Thompson, Dr. L. M.—Montrose, Pa.

TIOGA COUNTY—(4 MEMBERS)

Brodrick & Son, R. M.—Mansfield, Pa.
Norman, Albert—Liberty, Pa.
Seeley, H. L.—Elkland, Pa.
Woodward, Ray E.—Mansfield, R. D., Pa.

UNION COUNTY—(4 MEMBERS)

Brouse, Oscar—Mifflinburg, Pa.
Cole, Floyd L.—125 Chestnut St., Mifflinburg, Pa.
Craumer, Luther—Lewisburg, Pa.
Wissinger, J. H., Laurelton State Village—Laurelton, Pa.

VENANGO COUNTY—(12 MEMBERS)

Baker, John E.—Franklin, Pa.
Dempsey, C. J.—Titusville, R. D. 4, Pa.
Hanna, John L.—River Ridge Farm, Franklin, Pa.

Hancox, Lee J.—Titusville, Pa.
Ifft, E. G.—Court House, Franklin, Pa.
Morrison, D. H.—Van, R. D. 1, Pa.
Plumer Dairy Co.—Oil City, R. D. 2, Pa.
Polk State School—Polk, Pa.
Shaffer, E. W.—Titusville, R. D. 4, Pa.
Sharp, Harry I.—Diamond, R. D. 1, Pa.
Whitman, Harry W.—Diamond, Pa.
Zeiders, W. C.—Box 342, Franklin, Pa.

WARREN COUNTY—(2 MEMBERS)

Frantz, Dr. C. J.—Warren, Pa.
Tritt, O. C.—Agr. Ext. Office, Warren Pa.

WASHINGTON COUNTY—(3 MEMBERS)

Bock, H. O.—McDonald, Pa.
Caldwell, R. T.—Reo, R. D. 1, Pa.
Creighton, J. A.—Finleyville, Pa.

WAYNE COUNTY—(13 MEMBERS)

Bethany-Homestead Farm—Honesdale, Pa.
Cobb, John—Lake Ariel, Pa.
Courtwright, Albert—Lake Ariel, R. D. 1, Pa.
Erk, Fred C.—Starrucca, Pa.
Hauenstein, F. W.—Waymart, Pa.
Hill, Lewis—Lookout, Pa.
Haldeman, Walter—Agr. Ext. Office, Honesdale, Pa.
Johnson, Theron L.—c/o Otto Olver, Honesdale, Pa.
McKeehen, J. E.—Honesdale, Pa.
O'Neill, W. B.—Pleasant Mt., R. D. 1, Pa.
Olver, Emmett—Honesdale, R. D. 4, Pa.
Olver, T. H.—Honesdale, R. D. 4, Pa.
Robinson, H. A.—Seelyville, Pa.

WESTMORELAND COUNTY—(31 MEMBERS)

Almes, Paul E.—Saltsburg, Pa.
Baird, Charles A.—Salina, Pa.
Beatty, Wilber—60 Bank & Trust Bldg., Greensburg, Pa.
Bytheway, Edw.—Mooween, Pa.
Crawford, A. L.—Belle Vernon, R. D. 2, Pa.
Cunningham, Edward—Belle Vernon, R. D. 2, Pa.
Cunningham, Leslie—Belle Vernon, R. D. 2, Pa.
Farlow, Norman C.—Oak Street, Irwin, Pa.
Heath, S. W.—Belle Vernon, R. D. 2, Pa.
Hugus, Paul A.—Latrobe, R. D. 3, Pa.
Hungarian Orphans' Home—Ligonier, Pa.
Kim, Joseph—Larimer, Pa.
Kintigh, F. M.—Irwin, R. D. 2, Pa.
Leeper, W. H.—Belle Vernon, R. D. 2, Pa.
Lemon, J. M. & C. A.—Saltsburg, Pa.
Lemon, R. C. & Son—Saltsburg, Pa.

Long, Philip L. ---------- New Stanton, R. D. 1, Pa.
McKenery, J. M. ---------- Belle Vernon, R. D. 1, Pa.
Miller, H. F. ---------- Rufsdale, R. D. 2, Pa.
Moffat & Sons, John ---------- New Alexandria, Pa.
Pekonen, I. J. ---------- Belle Vernon, R. D. 1, Pa.
Seanor, J. H. ---------- New Alexandria, R. D. 3, Pa.
Shrum, Charles W. ---------- Jeannette, Pa.
Silvis, B. W. ---------- Export, R. D. 1, Pa.
St. Vincent Archabbey ---------- Latrobe, Pa.
Stahl, Geo. O. ---------- Smithton, Pa.
Todd Brothers ---------- Belle Vernon, R. D. 2, Pa.
Treager, W. L. ---------- 60 Bank & Trust Bldg., Greensburg, Pa.
White & Son, L. ---------- New Kensington, R. D. 2, Pa.
Wineman, J. E. ---------- Youngwood, Pa.
Wohlwend, I. C. ---------- Salina. Pa.

WYOMING COUNTY—(NO MEMBERS)

YORK COUNTY—(8 MEMBERS)

Brant, John S. ---------- Dallastown, Pa.
Fishel, J. B. ---------- York, Pa.
Gross, E. S. ---------- Manchester, R. D. 1, Pa.
Hamme, J. J. ---------- Abbottstown, Pa.
May, C. Allen ---------- York, Pa.
Poorbaugh, J. A. ---------- York, Pa.
Schaefer, William F., Jr. ---------- York, Pa.
Scott, Robert M. ---------- Delta, R. D. 2, Pa.

OUT OF STATE—(13 MEMBERS)

Bell, Dr. A. I. ---------- Medical Arts Bldg., Baltimore, Md.
Dennison, H. E. ---------- East Lansing, Mich.
Gockley, R. R. c/o Dairymen's League, 11 W. 42nd St., New York City, N. Y.
Holstein-Friesian World ---------- Lacona, N. Y.
Lutz, H. K. ---------- Midland, Md.
Morley, L. W. ---------- 324 W. 23rd St., New York City, N. Y.
Plummer, J. T. ---------- Salem, R. D. 3, N. J.
Slewellyn, C. E. ---------- Midland, Md.
Stimson, S. N. ---------- Spencer, N. Y.
Strohmeyer, Harry ---------- 215 Fourth Ave., New York City, N. Y.
Van Pelt, D. H. ---------- Purina Mills, St. Louis, Mo.
Whittaker, Tom P. ---------- Brandon, Vt.
Whittingham, William R. ---------- Glencoe, Md.

317-160

End of Volume